Self Diagnosis Supported model

# SERVICE MANUAL

# AE-6B CHASSIS

| MODEL | COMMANDER | DEST | CHASSIS NO. | MODEL | COMMANDER | DEST | CHASSIS NO. |
|---|---|---|---|---|---|---|---|
| KV-29LS60B | RM-932 | FR | SCC-Q83A-A | KV-29LS60K | RM-932 | OIRT | SCC-Q82B-A |
| KV-29LS60E | RM-932 | ESP | SCC-Q81A-A | | | | |

# FD Trinitron

KV-29LS60

RM-932

TRINITRON ® COLOR TV

SONY®

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**CAUTION**

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.**

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

*SAFETY-RELATED COMPONENT WARNING !!*

*COMPONENTS IDENTIFIED BY SHADING AND MARKED ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.*

**ATTENTION**

**APRES AVOIR DECONNECTE LE CAP DE'LANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.**

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

*ATTENTION AUX COMPOSANTS RELATIFS Á LA SECURITÈ!!*

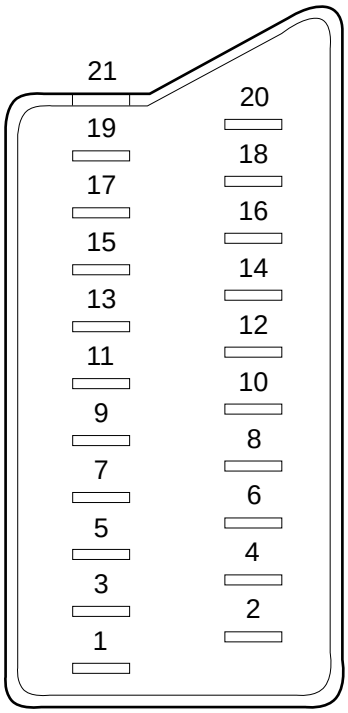
*LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.*

| ITEM MODEL | Television System | Stereo System | Channel Coverage | Color System |
|---|---|---|---|---|
| B | B/G/H, D/K, I, L | GERMAN/NICAM Stereo | VHF : E2-E12, F2-F10<br>UHF : E21-E69, F21-F69, B21-B69<br>CABLE TV : S01-S03, S1-S20, B-Q<br>HYPER : S21-S41 | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |
| E | B/G/H | GERMAN/NICAM Stereo | VHF : E2-E12<br>UHF : E21-E69<br>CABLE TV : S01-S03, S1-S20<br>HYPER : S21-S41 | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |
| K | B/G/H, D/K | GERMAN/NICAM Stereo | VHF : E2-E12, R01-R12<br>UHF : E21-E69, R21-R69<br>CABLE TV : S01-S03, S1-S20<br>HYPER : S21-S41 | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |

| | | | | |
|---|---|---|---|---|
| Picture Tube | FD Trinitron<br>Approx 72 cm (29 inches)<br>(Approx 68 cm picture measured diagonally)<br>104 degree deflection | **Sound output** | | |
| | | Right and Left speaker | 2x20W (Music Power) | 2x10W (RMS) |
| | | Sub Woofer | 1x30W (Music Power) | 1x15W (RMS) |
| **Input/Output Terminals [REAR]** | | **General Specifications** | | |
| 1: 21-pin Euro connector (CENELEC standard) | Inputs for Audio and Video signals.<br>Inputs for RGB.<br>Outputs of TV Video and Audio signals. | Power Requirements | 220 - 240V | |
| | | Power Consumption | 130W | |
| 2: 21-pin Euro connector | Inputs for Audio and Video signals.<br>Inputs for RGB.<br>Outputs of TV Video and Audio signals. (selectable) | Dimensions | Approx 771x592x553mm | |
| | | Weight | Approx 49kg | |
| Phono Jacks | Output Connectors variable for Audio Signals | Supplied Accessories | RM-932 Remote Commander (1)<br>IEC designated R6 battery (2) | |
| **Input/Output Terminals [SIDE]** | | Other Features | 100 Hz picture, TV system Autodetection, Teletext, Smartlink, BBE, Virtual Dolby | |
| Headphone jack | stereo mini jack | **Remote Control System : Infrared Control** | | |
| Audio inputs | phono jacks | Power requirements | 3V dc<br>2 batteries IEC designation<br>R6 (size AA) | |
| Video inputs | phono jacks | | | |
| S Video input | 4 pin DIN | | | |
| **Design and specifications are subject to change without notice.** | | | | |

| Model Name<br>Item | KV-29LS60B | KV-29LS60E | KV-29LS60K |
|---|---|---|---|
| Pal Comb | OFF | OFF | OFF |
| PIP | OFF | OFF | OFF |
| RGB Priority | ON | ON | ON |
| Woofer Box | ON | ON | ON |
| Scart 1 | ON | ON | ON |
| Scart 2 | ON | ON | ON |
| Front in (3) | ON | ON | ON |
| Scart 4 | OFF | OFF | OFF |
| Projector | OFF | OFF | OFF |
| Norm B/G | ON | ON | ON |
| Norm I | ON | OFF | OFF |
| Norm D/K | ON | ON | ON |
| Norm AUS | OFF | OFF | OFF |
| Norm L | ON | OFF | OFF |
| Norm SAT | OFF | OFF | OFF |
| Norm M | OFF | OFF | OFF |
| Teletext | ON | ON | ON |
| Nicam Stereo | ON | ON | ON |

## 21 pin connector




| Pin No | 1 | 2 | 4 | Signal | Signal level |
|---|---|---|---|---|---|
| 1 | ○ | ○ | ○ | Audio output B (right) | Standard level : 0.5V rms<br>Output impedence : Less than 1kohm* |
| 2 | ○ | ○ | ○ | Audio input B (right) | Standard level : 0.5V rms<br>Output impedence : More than 10kohm* |
| 3 | ○ | ○ | ○ | Audio output A (left) | Standard level : 0.5V rms<br>Output impedence : Less than 1kohm* |
| 4 | ○ | ○ | ○ | Ground (audio) | |
| 5 | ○ | ○ | ○ | Ground (blue) | |
| 6 | ○ | ○ | ○ | Audio input A (left) | Standard level : 0.5V rms<br>Output impedence : More than 10kohm* |
| 7 | ○ | ● | ● | Blue input | 0.7 +/- 3dB, 75 ohms positive |
| 8 | ○ | ○ | ○ | Function select (AV control) | High state (9.5-12V) : Part mode<br>Low state (0-2V) : TV mode<br>Input impedence : More than 10K ohms<br>Input capacitance : Less than 2nF |
| 9 | ○ | ○ | ○ | Ground (green) | |
| 10 | ○ | ○ | ○ | Open | |
| 11 | ○ | ● | ● | Green | Green signal : 0.7 +/- 3dB, 75 ohms, positive |
| 12 | ○ | ○ | ○ | Open | |
| 13 | ○ | ○ | ○ | Ground (red) | |
| 14 | ○ | ○ | ○ | Ground (blanking) | |
| 15 | ○ | – | – | Red input | 0.7 +/- 3dB, 75 ohms, positive |
| | – | ○ | ○ | (S signal Chroma input) | 0.3 +/- 3dB, 75 ohms, positive |
| 16 | ○ | ● | ● | Blanking input (Ys signal) | High state (1-3V) Low state (0-0.4V)<br>Input impedence : 75 ohms |
| 17 | ○ | ○ | ○ | Ground (video output) | |
| 18 | ○ | ○ | ○ | Ground (video input) | |
| 19 | ○ | ○ | ○ | Video output | 1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB) |
| 20 | ○ | – | – | Video input | 1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB) |
| | – | ○ | ○ | Video input Y (S signal) | 1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB) |
| 21 | ○ | ○ | ○ | Common ground (plug, shield) | |

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

## Rear Connection Panel

## Side Connection Panel

**S-Video socket**

| S Video socket pin configuration | | |
|---|---|---|
| **Pin No** | **Signal** | **Signal Level** |
| 1 | Ground | - |
| 2 | Ground | - |
| 3 | Y (S signal) input | 1V+/- 3dB 75ohm, positive Sync. 0.3V -3 +10dB |
| 4 | C (S signal) input | 0.3V+/- 3dB 75ohm, positive Sync. |

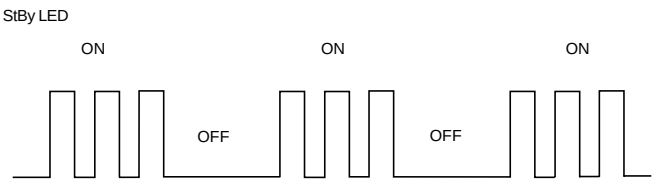
# AE-6B SELF DIAGNOSTIC SOFTWARE

The identification of errors within the AE-6B chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1, non fatal errors are reported using this method.
Each time the software detects an error it is stored within the NVM. See Table 2.

**Table 1**

| Error Message | LED Code |
|---|---|
| No error | 00 |
| Reserved | 01 |
| OCP ( Over Current Protection ) | 02 |
| Over Voltage Protection | 03 |
| No Vertical Sync | 04 |
| IKR Error at power on | 05 |
| IIC bus clock and/or data lines low at power on | 06 |
| NVM no IIC bus acknowledge at power on | 07 |
| Horizontal Protection | 08 |
| Tuner no acknowledge at power on | 09 |
| Sound Processor Error | 10 |
| Reserved | 11 |
| Scanrate Error | 12 |
| DAC Error | 13 |
| Backend Error | 14 |
| Dynamic Convergence Error | 15 |
| PIP Error | 16 |

**Flash Timing Example : e.g. error number 3**




## How to enter into Table 2

1. Turn on the main power switch of the TV set.
2. Program Remote Commander for Operation in Service Mode. [See Page 20].
3. Press ‘VIDEO’ ‘VIDEO’ > ‘MENU’ on the Remote Commander.
4. Using the Remote Commander, Scroll to the ‘Error Menu’ item using the down arrow key, then press the right arrow key.
5. The following table will be displayed indicating the error count.

**Table 2**

| **ERROR MENU** | | | |
|---|---|---|---|
| E02 | OCP | (0, 255) | 0 |
| E03 | OVP | (0, 255) | 0 |
| E04 | VSYNC | (0, 255) | 0 |
| E05 | IKR | (0, 255) | 0 |
| E06 | IIC | (0, 255) | 0 |
| E07 | NVM | (0, 255) | 0 |
| E08 | HPROT | (0, 255) | 0 |
| E09 | TUNER | (0, 255) | 0 |
| E10 | SOUNDP | (0, 255) | 0 |
| E11 | - | (0, 255) | 0 |
| E12 | SCANRATE | (0, 255) | 0 |
| E13 | DAC | (0, 255) | 0 |
| E14 | BACKEND | (0, 255) | 0 |
| E15 | DYN CON | (0, 255) | 0 |
| E16 | PIP | (0, 255) | 0 |
| **WORKING TIME** | | | |
| HOURS | | | 14 |
| MINUTES | | | 7 |

**Note:** To clear the error count data press ‘80’ on the Remote commander.

The operating instructions mentioned here are partial abstracts from the 'Operating Instruction Manual'. The page numbers of the 'Operating Instruction Manual' remain as in the manual.



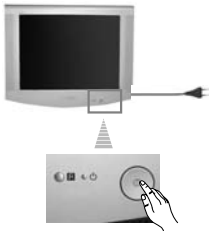




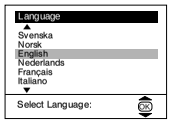
## Switching On the TV and Automatically Tuning

The first time you switch on your TV, a sequence of menu screens appear on the TV enabling you to: 1) choose the language of the menu screen, 2) choose the country in which you wish to operate the TV, 3) adjust the picture slant 4) search and store all available channels (TV Broadcast) and 5) change the order in which the channels (TV Broadcast) appear on the screen.
However, if you need to change any of these settings at a later date, you can do that by selecting the appropriate option in the (Set Up menu) or by pressing the Auto Start Up Button on the TV set.

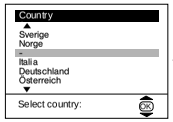
**1** Connect the TV plug to the mains socket (220-240V AC, 50Hz)
Press the on/off button on the TV set to turn on the TV. The first time you press this button, a **Language** menu displays automatically on the TV screen.



**2** Press the or button on the remote control to select the language, then press the **OK** button to confirm your selection. From now on all the menus will appear in the selected language.



**3** The **Country** menu appears automatically on the TV screen. Press the or button to select the country in which you will operate the TV set, then press the **OK** button to confirm your selection.

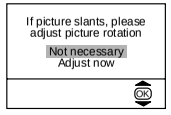


- If the country in which you want to use the TV set does not appear in the list, select "-" instead of a country.
- In order to avoid wrong teletext characters for Cyrillic languages we recommend to select Russia country in the case that your own country does not appear in the list.

**4** Because of the earth's magnetism, the picture might slant. The **Picture Rotation** menu allows you to correct the picture slants if it is necessary.

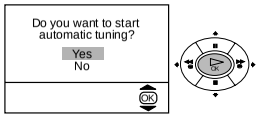
**a)** If it is not necessary, press or to select **Not necessary** and press **OK**.

**b)** If it is necessary, press or to select **Adjust now**, then press **OK** and correct any slant of the picture between –5 and +5 by pressing or . Finally press **OK** to store.



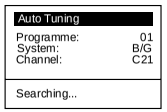
continued...

**5** The Auto Tuning menu appears on the screen. Press the **OK** button to select **Yes**.

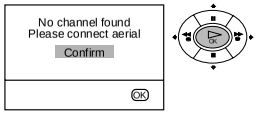



**6** The TV starts to automatically search and store all available broadcast channels for you.

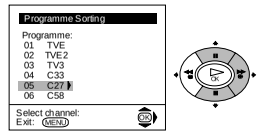
This procedure could take some minutes. Please be patient and do not press any buttons, otherwise the automatic tuning will not be completed.




If no channels were found during the auto tuning process then a new menu appears automatically on the screen asking you to connect the aerial. Please connect the aerial (see page 6) and press **OK**. The auto tuning process will start again.




**7** After all available channels are captured and stored, the **Programme Sorting** menu appears automatically on the screen enabling you to change the order in which the channels appear on the screen.



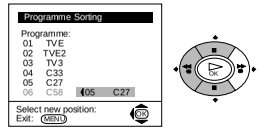

**a)** If you wish to keep the broadcast channels in the tuned order, go to step 8.

**b)** If you wish to store the channels in a different order:

**1** Press the or button to select the programme number with the channel (TV Broadcast) you wish to rearrange, then press the button.

**2** Press the or button to select the new programme number position for your selected channel (TV Broadcast), then press .

**3** Repeat steps b)1 and b)2 if you wish to change the order of the other channels.




**8** Press the **MENU** button to remove the menu from the screen.

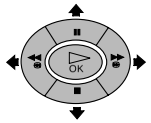
*Your TV is now ready for use*

# Introducing and Using the Menu System

Your TV uses an on-screen menu system to guide you through the operations. Use the following buttons on the Remote Control to operate the menu system:

**1** Press the **MENU** button to switch the first level menu on.

**2**
- To highlight the desired menu or option, press ↓ or ↑.
- To enter to the selected menu or option, press →.
- To return to the last menu or option, press ←.
- To alter settings of your selected option, press ↓ / ↑ / ← or →.
- To confirm and store your selection, press **OK**.



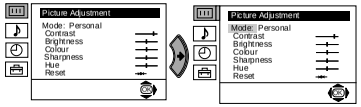

**3** Press the **MENU** button to remove the menu from the screen.

GB



# Menu Guide

**Level 1** **Level 2** **Level 3 / Function**

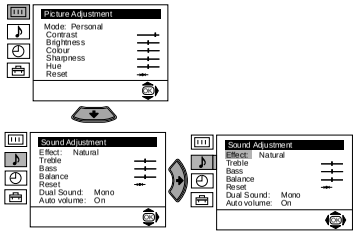



**PICTURE ADJUSTMENT**
The "Picture Adjustment" menu allows you to alter the picture adjustments.

To do this: after selecting the item you want to alter press →, then press repeatedly ↓ / ↑ / ← or → to adjust it and finally press **OK** to store the new adjustment.
This menu also allows you to customise the picture mode based on the programme you are watching:
- ↓ **Personal** (for individual settings).
- ↓ **Live** (for live broadcast programmes, DVD and Digital Set Top Box receivers).
- ↓ **Movie** (for films).

- ***Brightness, Colour*** *and* ***Sharpness*** *can only be altered if "Personal" mode is selected.*
- ***Hue*** *is only available for NTSC colour signal (e.g: USA video tapes).*
- *Select* ***Reset*** *and press* ***OK*** *to reset the picture to the factory preset levels.*

**Level 1** **Level 2** **Level 3 / Function**




**SOUND ADJUSTMENT**
The "Sound Adjustment" menu allows you to alter the sound adjustments.

To do this: after selecting the item you want to alter, press →. then press repeatedly ↓ / ↑ / ← or → to adjust it and finally press **OK** to store the new adjustment.

**Effect**
- ↓ **Natural:** enhances clarity, detail and presence of sound by using "BBE High Definition Sound system"*.
- ↓ **Dynamic:** "BBE High Definition Sound system"* intensifies clarity and presence of sound for better intelligibility and musical realism.
- ↓ **Dolby**Virtual:** simulates the sound effect of Dolby Prologic surround.
- ↓ **Off:** flat response.

**Treble** ← Less → More

**Bass** ← Less → More

**Balance** ← Left → Right

**Reset** (OK) Resets the sound to the factory preset levels.

**Dual Sound:** →
- *For a stereo broadcast:*
  - ↓ **Mono**.
  - ↓ **Stereo**.
- *For a bilingual broadcast:*
  - ↓ **Mono** (for mono channel if available).
  - ↓ **A** (for channel 1).
  - ↓ **B** (for channel 2).

**Auto Volume:**
- ↓ **On:** volume level changes according to the broadcast signal.
- ↓ **Off:** volume level of the channels will stay the same, independent of the broadcast signal (e.g. in the case of advertisements).

- *If you are listening to the TV through headphones, the "Effect" option will automatically switched to Off.*
- *If you switch "Effect" to "Dolby Virtual", the "Auto Volume" option will automatically be switched to "Off" and vice versa.*

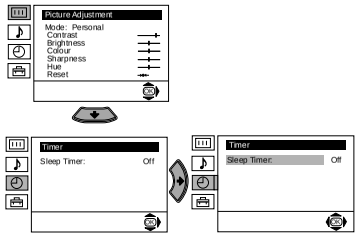
* *The "BBE High Definition Sound system" is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. Teh word "BBE" and BBE Symbol are trademarks of BBE Sound, Inc.*

** *This TV has been designed to create the "Dolby Surround" sound effect by simulating the sound of four speakers with two speakers, when the broadcast audio signal is Dolby Surround encoded. The sound effect can also be improved by connecting a suitable external amplifier (for details refer to "Connecting to external audio Equipment" on page 19).*

** *Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol* ◫ *are trademarks of Dolby Laboratories.*

continued...

| Level 1 | Level 2 | Level 3 / Function |
|---|---|---|

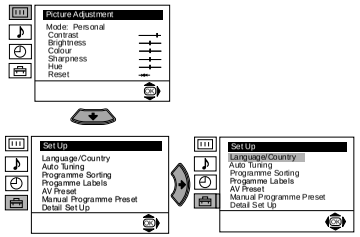



### SLEEP TIMER

The “Sleep Timer” option in the “Timer” menu allows you to select a time period for the TV to switch itself automatically into the standby mode.

To do this: after selecting the option press ➔, then press ▼ or ▲ to set the time period delay (max. of 4 hours) and finally press **OK** to store.

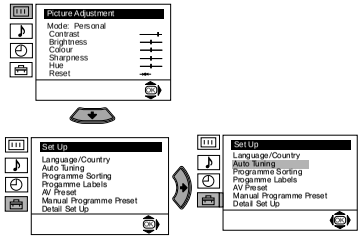
- *While watching the TV, you can press the i+ button on the remote control to display the time remaining.*
- *One minute before the TV switches itself into standby mode, the time remaining is displayed on the TV screen automatically.*




### LANGUAGE / COUNTRY

The “Language/Country” option in the “Set Up” menu allows you to select the language that the menus are displayed in. It also allows you to select the country in which you wish to operate the TV set.

To do this: after selecting the option, press ➔ and then proceed in the same way as in the steps 2 and 3 of the section “Switching On the TV and Automatically Tuning”.




### AUTO TUNING

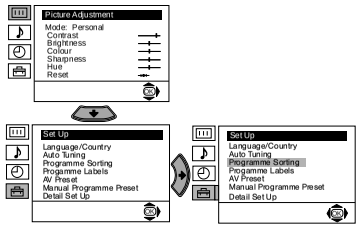
The “Auto Tuning” option in the “Set Up” menu allows you to automatically search for and store all available TV channels.

To do this: after selecting the option, press ➔ and then proceed in the same way as in TV steps 5 and 6 of the section “Switching On the TV and Automatically Tuning”.

continued...

GB

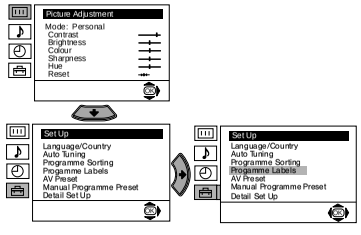
| Level 1 | Level 2 | Level 3 / Function |
|---|---|---|




### PROGRAMME SORTING

The “Programme Sorting” option in the “Set Up” menu allows you to change the order in which the channels (TV Broadcast) appear on the screen.

To do this: after selecting the option, press ➔ and then proceed in the same way as in step 7 b) of the section “Switching On the TV and Automatically Tuning”.



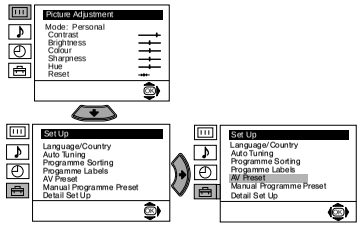

### PROGRAMME LABELS

The “Programme Labels” option in the “Set Up” menu allows you to name a channel using up to five characters (letters or numbers).

To do this:

**1** After selecting the option, press ➔, then press ▼ or ▲ to select the programme number with the channel you wish to name.

**2** Press ➔. With the first element of the **Label** column highlighted, press ▼ or ▲ to select a letter or number (select “-” for a blank), then press ➔ to confirm this character. Select the other four characters in the same way. Finally press **OK** to store.




### AV PRESET

The “AV Preset” option in the “Set Up” menu allows you to designate a name to the external equipment you have connected to the sockets of this TV.

To do this:

**1** After selecting the option, press ➔, then press ▼ or ▲ to select the input source you wish to name (**AV1, AV2** and **AV3** are for the rear Scarts and **AV4** for side connectors). Then press ➔.

**2** In the label column automatically appears a label:

**a)** If you want to use one of the 6 predefined label (**CABLE, GAME, CAM, DVD, VIDEO** or **SAT**), press ▼ or ▲ to select the desired label and finally press **OK** to store.

**b)** If you want to set a different label, select **Edit** and press ➔. Then with the first element highlighted, press ▼ or ▲ to select a letter, number or “-” for a blank, then press ➔ to confirm this character. Select the other four characters in the same way and finally press **OK** to store.

continued...

# Teletext

Teletext is an information service transmitted by most TV stations. The index page of the teletext service (usually page 100) gives you information on how to use the service. To operate teletext, use the remote control buttons as indicated below.

Make sure to use a channel (TV Broadcast) with a strong signal, otherwise teletext errors may occur.

**To Switch On Teletext :**

After selecting the TV channel which carries the teletext service you wish to view, press .

**To Select a Teletext page:**

Input 3 digits for the page number, using the numbered buttons.

- *If you have made a mistake, retype the correct page number.*
- *If the counter on the screen continues searching, it is because this page is not available. In that case, input another page number*

**To access the next or preceding page:**

Press **PROG +** ( ) or **PROG -** ( ).

**To superimpose teletext on to the TV:**

Whilst you are viewing teletext, press . Press it again to cancel teletext mode.

**To freeze a teletext page:**

Press / . Press it again to cancel the freeze.

**To reveal concealed information (e.g: answer to a quiz):**

Press / . Press it again to conceal the information.

**To select a sub page:**

A teletext page may consist of several sub pages. In this case the page number that appears on the upper left corner will become from yellow to green colour and one or more arrows will appear next to the page number. Press repeatedly ◀ or ▶ buttons on the remote control to watch the desired sub page.

**To Switch Off Teletext:**

Press .

# Fastext

Fastext service lets you access pages with one button push.
While you are in Teletext mode and Fastext is broadcast, a colour coded menu appears at the bottom of the teletext page. Press the colour button (red, green, yellow or blue) to access the corresponding page.



GB

# Remote Control Configuration for VCR/DVD

This remote control is default to operate basic functions of this Sony TV, Sony DVD and most of Sony VCR when batteries are initially installed. To control other VCR and DVD major brands and some Sony VCR models, please complete the following steps:

- Before you start, look up the 3 digit code for your brand of DVD or VCR from the list below. On those brands that have more than one code, enter the first code number.
- Sony will endeavour to update the software according to market changes. Therefore, please refer to code table included with the remote control for latest code set.

**1** Press the Media Selector button on the remote control repeatedly until the required VCR or DVD green light is lit.

If Media Selector is on TV position, code numbers will not be stored.

**2** Before the green light goes out, press and hold the yellow button for approximately 6 seconds until the green light starts flashing.

**3** Whilst the green light is flashing, enter all three digits of the code for your brand using the number buttons on the remote control.

If your selected code is entered correctly, all three green lights will be lit momentarily.

**4** Turn on your brand VCR or DVD and check that the main functions work.

- If your device is not working or some of the functions do not work please check you entered the correct code set or try the next code listed against the brand.
- Your brand codes may be lost if weak batteries are not replaced within a few minutes. To reset your brand DVD or VCR please repeat the above steps. A small label is added inside the battery door to allow you to record your brand codes.
- Not all brands are covered and not all models of every brand may be covered.

## VCR Brand List

| Brand | Code |
|---|---|
| SONY (VHS) | 301, 302, 303, 308, 309 |
| SONY (BETA) | 303, 307, 310 |
| SONY (DV) | 304, 305, 306 |
| AIWA | 325, 331, 351 |
| AKAI | 326, 329, 330 |
| DAEWOO | 342, 343 |
| GRUNDIG | 358, 355, 360, 361, 320, 351 |
| HITACHI | 327, 333, 334 |
| JVC | 314, 315, 322, 344, 352, 353, 354, 348, 349 |
| LG | 332, 338 |
| LOEWE | 358, 355, 360, 361, 320, 351 |
| MATSUI | 356, 357 |
| ORION | 328 |
| PANASONIC | 321, 323 |
| PHILIPS | 311, 312, 313, 316, 317, 318, 358, 359 |
| SAMSUNG | 339, 340, 341, 345 |
| SANYO | 335, 336 |
| SHARP | 324 |
| THOMSON | 319, 350 |
| TOSHIBA | 337 |

## DVD Brand List

| Brand | Code |
|---|---|
| SONY | 001 |
| AIWA | 021 |
| DENON | 018, 027, 020, 002 |
| GRUNDIG | 009, 028, 023, 024, 016, 003 |
| HITACHI | 025, 026, 015, 004 |
| JVC | 006, 017 |
| KENWOOD | 008 |
| LG | 015, 014 |
| LOEWE | 009, 028, 023, 024, 016, 003 |
| MATSUI | 013, 016 |
| ONKYO | 022 |
| PANASONIC | 018, 027, 020, 002 |
| PHILIPS | 009, 028, 023, 024, 016, 003 |
| PIONEER | 004 |
| SAMSUNG | 011, 014 |
| SANYO | 007 |
| SHARP | 019, 027 |
| THOMSON | 012 |
| TOSHIBA | 003 |
| YAMAHA | 018, 027, 020, 002 |

# Specifications

**TV system:**
Depending on your country selection:
B/G/H, D/K

**Colour system:**
PAL, SECAM
NTSC 3.58, 4.43 (only Video In)

**Channel Coverage:**
VHF: E2-E12
UHF: E21-E69
CATV: S1-S20
HYPER: S21-S41
D/K: R1-R12, R21-R69

**Picture Tube:**
Flat Display FD Trinitron
29" (approx. 73 cm. measured diagonally)

**Rear Terminals**

| | |
|---|---|
| 1/1 | 21-pin scart connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output. |
| 2/2 (SMARTLINK) | 21-pin Scart connector (CENELEC standard) including audio / video input, S video input, selectable audio / video output and Smartlink interface. |
| | audio outputs (Left/ Right) - phono jacks |

**Side Terminals**

| | |
|---|---|
| 3 | S Video input – 4 pin DIN |
| 3 | video input – phono jack |
| 3 | audio input – phono jacks |
| | headphones jack |

**Sound Output:**
2 x 20 W (music power)
2 x 10 W (RMS)
**Woofer:**
30 W (music power)
15 W (RMS)

**Power Consumption:**
130 W

**Standby Power Consumption:**
0.3 W

**Dimensions (w x h x d) :**
Approx. 771 x 592 x 553 mm.

**Weight:**
Approx. 49 Kg.

**Accessories supplied:**
1 Remote Control (RM-932)
2 Batteries (IEC designated)

**Other features:**
- 100 Hz picture
- Teletext, Fastext, TOPtext (250 page TEXT memory)
- Sleep Timer
- Smartlink (direct link between your TV set and a compatible VCR. For more information on Smartlink, please refer to the Instruction Manual of your VCR).
- TV system Autodetection.
- Dolby Virtual.
- BBE.

**Design and specifications are subject to change without notice.**

**Recycled Paper**



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# Troubleshooting

Here are some simple solutions to the problems which may affect the picture and sound.

| Problem | Solution |
|---|---|
| No picture (screen is dark) and no sound. | • Check the aerial connection.<br>• Plug the TV in and press the button on the front of the TV.<br>• If the standby indicator is on, press **TV** button on the remote control. |
| Poor or no picture (screen is dark), but good sound. | • Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to the factory settings. |
| No picture or no menu information from equipment connected to the Scart connector. | • Check that the optional equipment is on and press the button repeatedly on the remote control until the correct input symbol is displayed on the screen. |
| Good picture, no sound. | • Press the +/- button on the remote control.<br>• Check that "TV Speakers" is "On" on the "Detail Set Up" menu.<br>• Check that headphones are not connected. |
| No colour on colour programmes. | • Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to factory settings. |
| Distorted picture when changing programmes or selecting teletext. | • Turn off any equipment connected to the Scart connector on the rear of the TV. |
| Wrong characters appear when viewing teletext. | • Using the menu system, enter to the "Language/Country" menu and select the country in which you operate the TV set. For Cyrillic languages, we recommend to select Russia country in the case that your own country does not appear in the list. |
| Picture slanted | • Using the menu system, select the "Picture Rotation" option in the "Detail Set Up" menu to correct the picture slant. |
| Noisy picture when viewing a TV channel. | • Using the menu system, select the "Manual Programme Preset" menu and adjust Fine Tuning (AFT) to obtain better picture reception.<br>• Using the menu system, select the "Noise Reduction" option in the "Detail Set Up" menu and select "Auto" to reduce the noise in the picture. |
| No unscrambling or unstable picture whilst viewing a scrambling channel with a decoder connected through the Scart connector 3/3. | • Using the menu system, select the "Set Up" menu. Then enter to "Detail Set Up" option and set "AV2 Output" to "TV". |
| Remote control does not function. | • Check that the Media Selector on the remote control is set according to the device you are using (VCR, TV or DVD).<br>• If the remote control does not operate the VCR or DVD even when the Media Selector has been set correctly. Enter the necessary code set as explained on "Remote Control Configuration for VCR/DVD" chapter of this instruction manual.<br>• Replace the batteries. |
| The standby indicator on the TV flashes. | • Contact your nearest Sony service centre. |

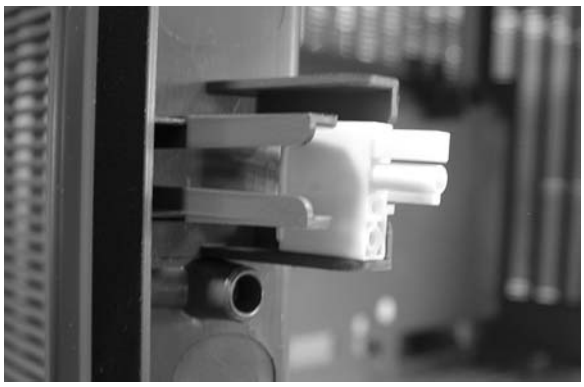
If you continue to experience problems, have your TV serviced by qualified personnel. Never open the casing yourself.

# SECTION 2 DISASSEMBLY

## 2-1. Rear Cover Removal

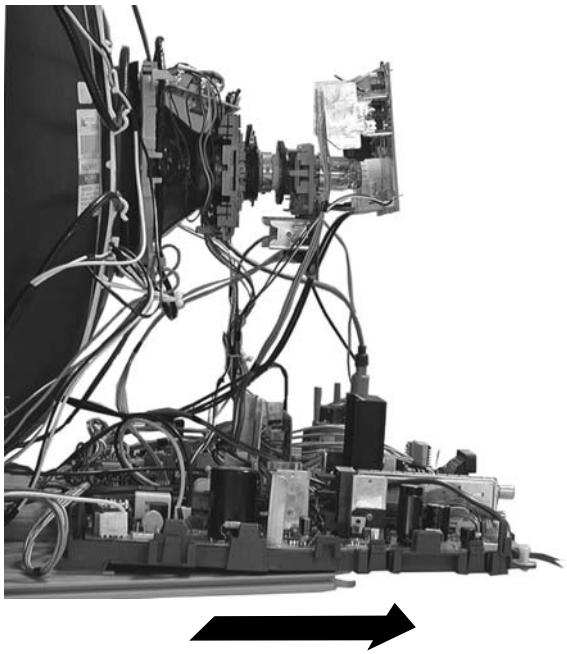
Remove the rear cover fixing screws indicated. Take care when removing the rear cover not to damage the speaker cables [Disconnect the speaker connector] as speakers are fitted inside the rear cover.

## 2-2. Speaker Connector Disconnection

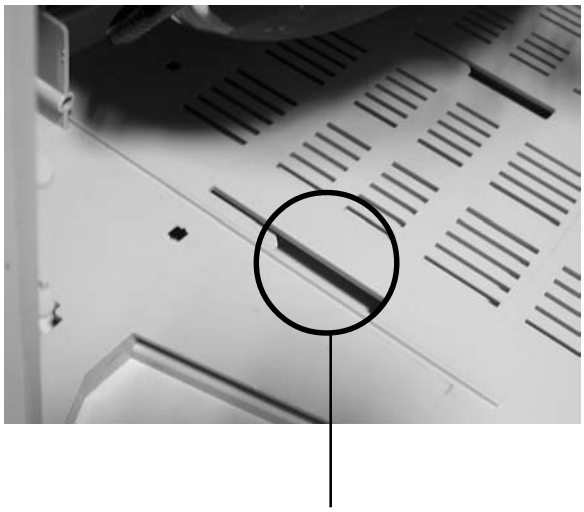


Before completely removing the rear cover disconnect the speaker connector which is located on the inside.

## 2-3. Chassis Removal and Refitting



To remove lift the main bracket rear slightly and slide the chassis away from the beznet. Ensure that the interconnecting leads are released from their purse locks to prevent damage being caused.

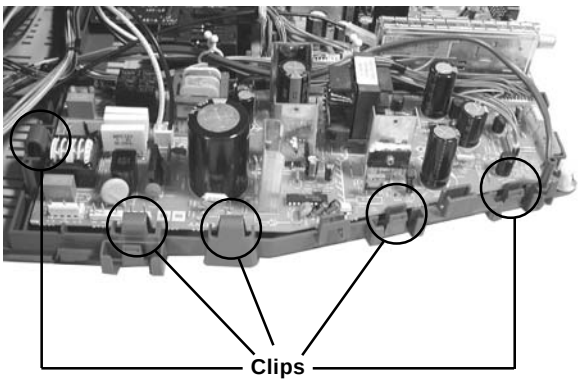


When refitting the chassis ensure that the main bracket is located in the beznet guide slots before sliding the chassis forwards. Refit the interconnecting leads in their respective purse locks.

## 2-4. Service Position

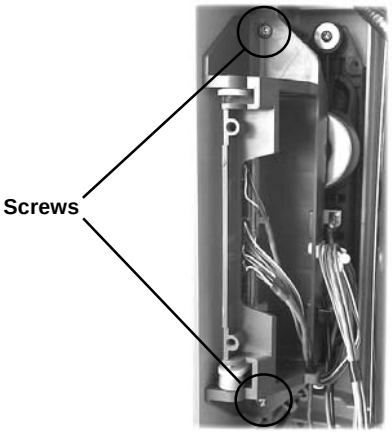
Position the chassis as indicated to access the solder side. To gain access to the underside of the boards follow the instructions on page 15. [Removal and Replacement of the main bracket bottom plates ].

## 2-5. D and G Board Removal



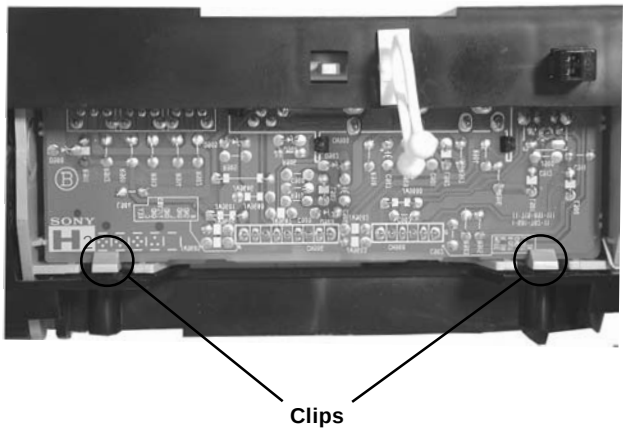

To remove the G Board release the clips circled and ease the board gently away from the support bracket. Removal of the D Board follows the same procedure.

## 2-6. Side Control Module Removal




Remove the two screws fixing the user control module to the side of the set. The control module can then be removed by sliding it towards the rear of the set allowing access to the H2 Board.

## 2-7. H2 Board Removal

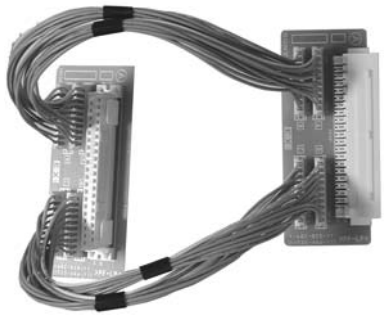



To remove the H2 Board release the two clips circled and ease the board gently away from the support bracket.

## 2-8. M Board Removal

To remove the M Board gently release the two clips with a screwdriver and remove the board from its socket vertically.

## 2-9. Service Connector for M Board



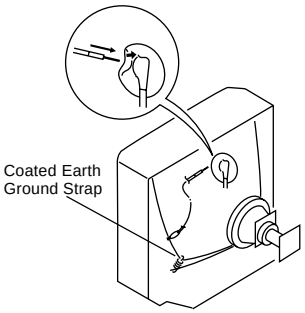

**Extender Board Assembly A-1642-293-A**

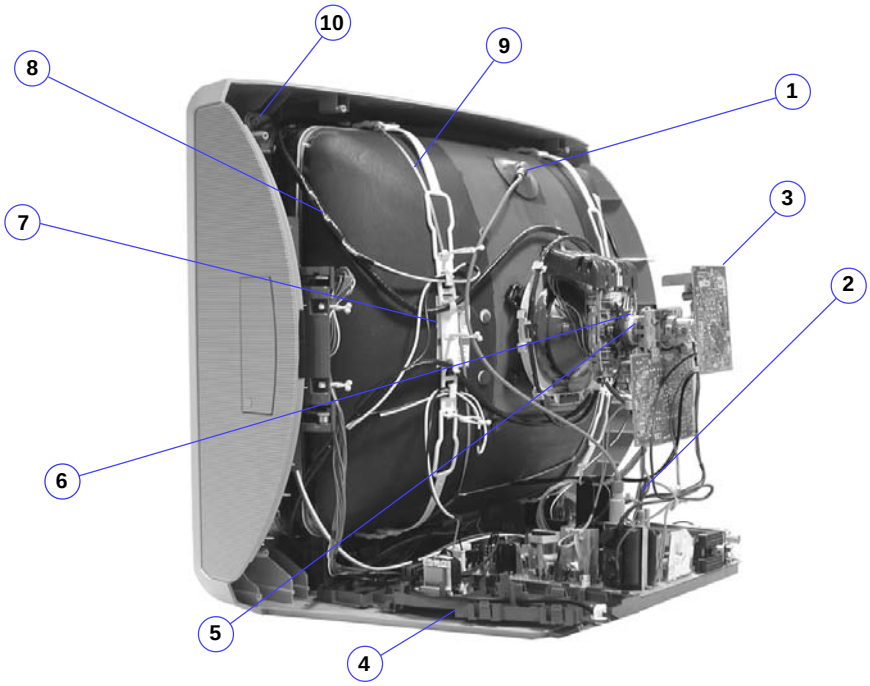
If the M Board needs to be removed for testing when the chassis is placed in its service position, it would be necessary to use an extender board and extension cable as indicated above.
The Extender board and extension cable are available as a service part by ordering the part number as indicated.

## 2-10. Picture Tube Removal

**WARNING:**
**BEFORE REMOVING**
**THE ANODE CAP**

High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT ***before*** attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.

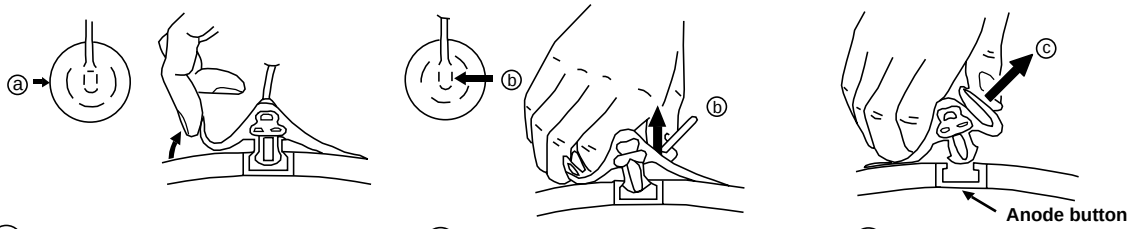



1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the Deflection yoke, neck assy, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the Neck assembly fixing screw and remove.
6. Loosen the Deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the Degaussing Coil holders.
8. Remove the Degaussing Coils.
9. Remove the CRT grounding strap and spring tentioners.
10. Unscrew the four CRT fixing screws [ located on each CRT corner ] and remove the CRT.
    [Take care not to handle the CRT by the neck.]

## Removal of the Anode-Cap

*** REMOVING PROCEDURES.**



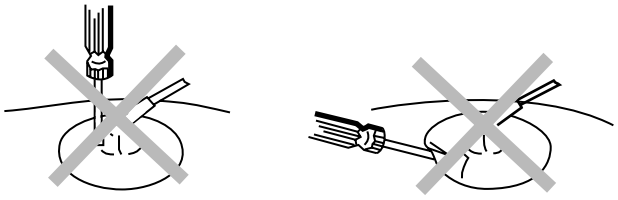

① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

## How to handle the Anode-Cap

1. To prevent damaging the surface of the anode-cap do not use sharp materials.
2. Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
3. A metal fitting called a shatter hook terminal is fitted inside the rubber cap.
4. Do not turn the rubber foot over excessively, this may cause damage if the shatter hook sticks out.

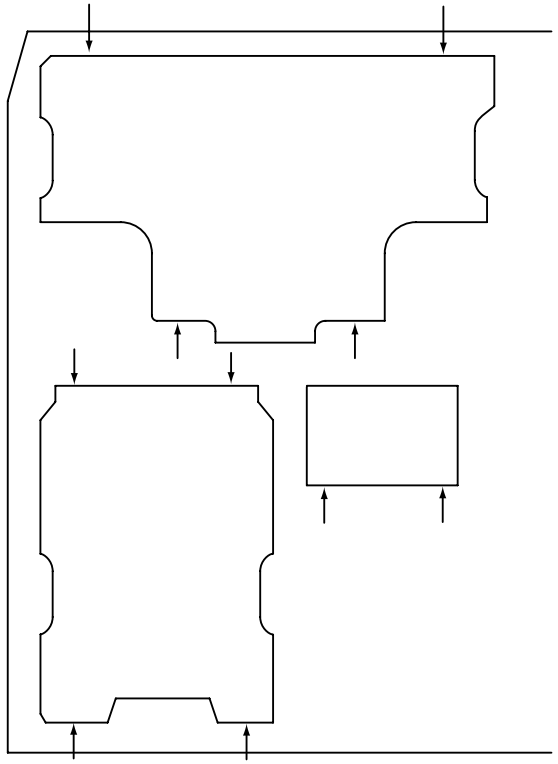


## REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

### (1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed wiring board, the bottom plates fitted to the main chassis bracket require to be removed.
This is performed by cutting the gates with a sharp wire cutter at the locations indicated by the arrows.

**Note :** There are 3 plates fitted to the main bracket and secured by3 gates.
Only remove the necessary plate to gain access to the printed wiring board.

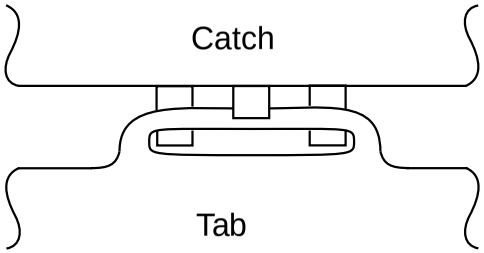


**⚠ For safety reasons, on no account should the plates be removed and not refitted after servicing.**

### (2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from their cut position to allow the tabs to be fitted into their catch positions.



# SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

  Contrast ..... normal

  Brightness ..... normal

**Carry out the adjustments in the following order :**

3-1. Beam Landing.
3-2. Convergence.
3-3. Focus.
3-4. White Balance.

**Note :** Test equipment required.
1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.

## 3-1. Beam Landing

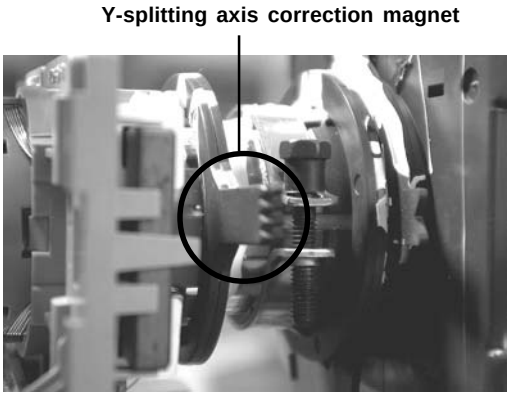
**Preparation :**

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the TV set's power and degauss with a degausser.

**(1) Adjustment of Correction Magnet for Y-Splitting Axis.**

1. Input a crosshatch signal from the pattern generator.
2. Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3. Position the neck assembly as indicated in Fig.3-2.
4. Loosen the deflection yoke fixing screw.
5. Move the deflection yoke as far forward as is possible.
6. Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly. [See Fig 3-3]
7. Return the deflection yoke to its original position and re-tighten its fixing screw.

**Fig.3-1**




**Caution :**

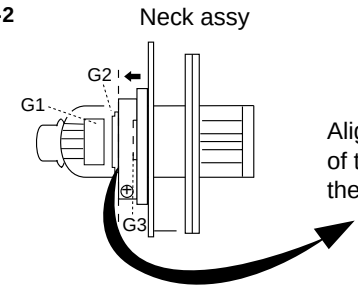
High voltages are present on the Deflection yoke terminals - take care when handling the Deflection yoke whilst carrying out adjustments.

**(2) Landing**

**Note :** Before carrying out the following adjustments adjust the magnets as indicated below [See Fig.3-4].

1. Input a crosshatch signal from the signal generator.
2. Rough-adjust the focus and horizontal convergence.
3. Switch from the crosshatch pattern to an all-red pattern.
4. Move the deflection yoke backwards and adjust with the purity magnet so that the red is at the centre and it aligns symmetrically [See Fig.3-5].
5. Move the deflection yoke forward to the point where the entire screen just becomes red [Mark its position].
6. Move the deflection yoke further forward until the screen just changes colour at the edges. [Mark its position]
7. Position the deflection yoke between the two marks indicated above.
8. Input a crosshatch pattern from the pattern generator and rotate the deflection yoke so that the horizontal lines are parallel with the top and bottom of the screen.
9. When the position of the deflection yoke has been determined, fasten it with its fixing screw.
10. Switch the pattern generator to green then blue and confirm the purity.
11. If the beam does not land correctly in all the corners of the screen, use disk magnets to correct it. [Confirm the corner landing for green and blue]

**Fig.3-2**



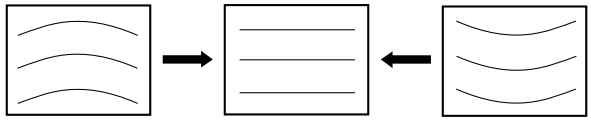
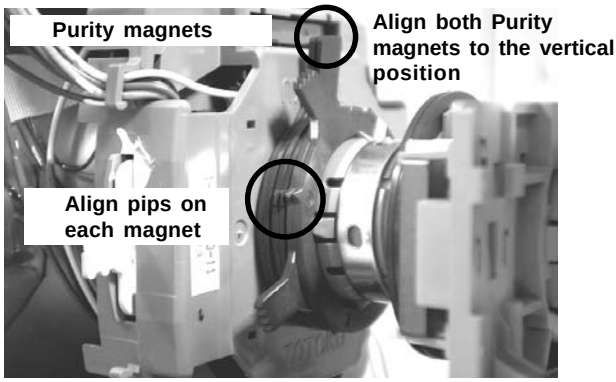
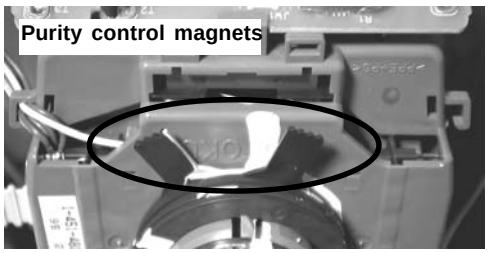
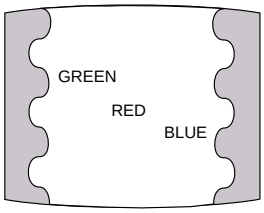



**Fig.3-3**

Fig.3-4




## 3-2. Convergence

**(1) Screen centre convergence [Static convergence]**

1. Input a dot pattern signal from the pattern generator.
2. Normalize the picture setting.
3. [Moving vertically], adjust the V.STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.

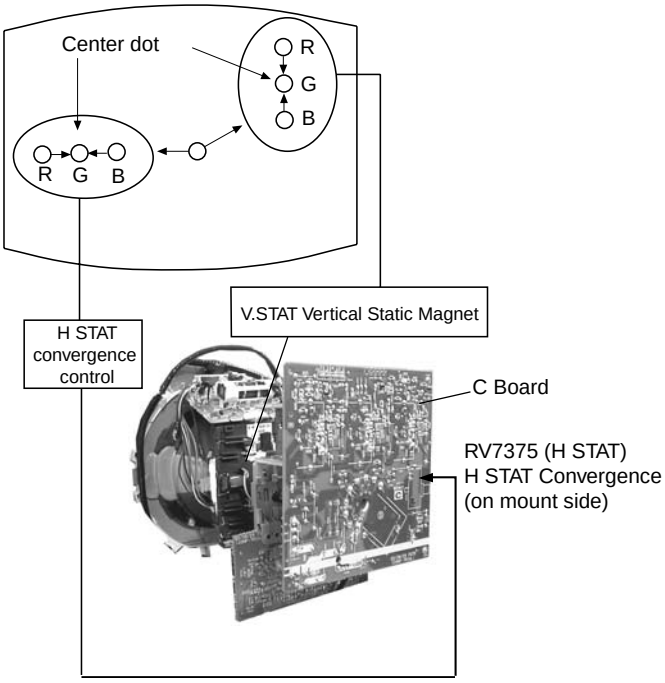
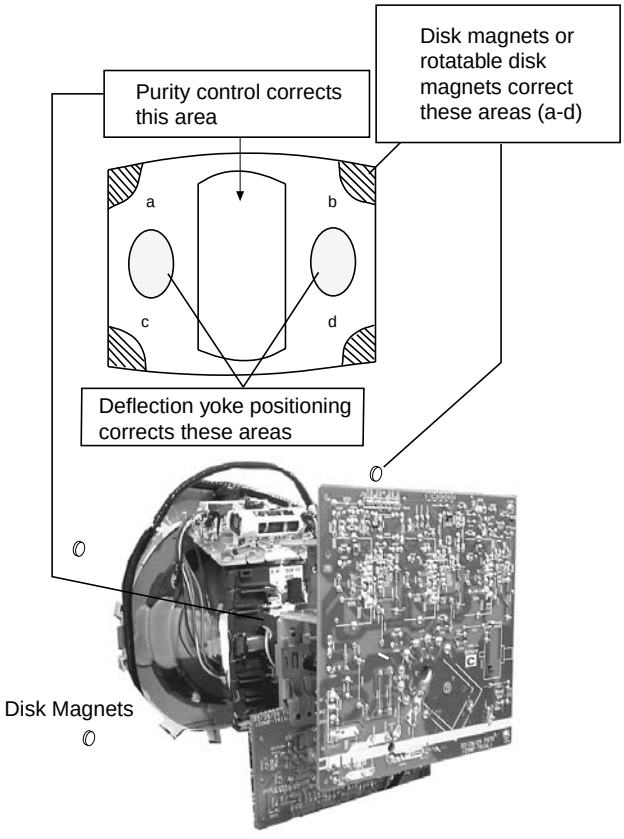
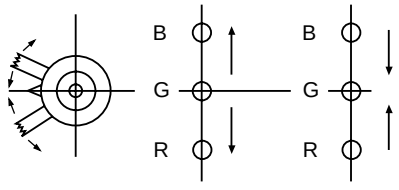



Fig.3-5



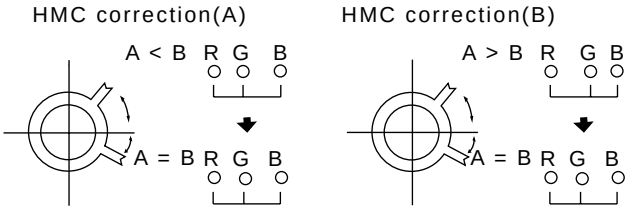

By opening or closing the V.STAT magnet, the red green and blue dots move in the direction indicated below.



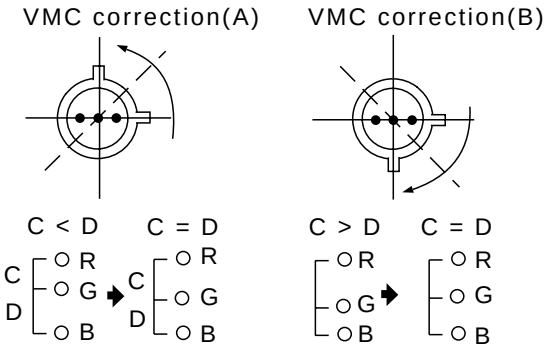

**Note:** Do not adjust the H.STAT by rotating the V.STAT magnets as this can affect the focus setting.

4. Correction for HMC [Horizontal mis-convergence] and VMC [Vertical mis-convergence] by using the BMC [Hexapole] magnet.

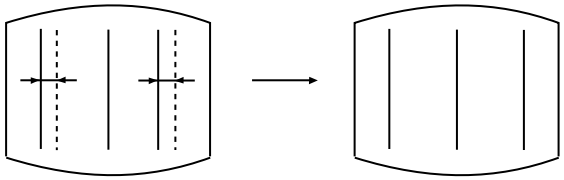
a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.




b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.

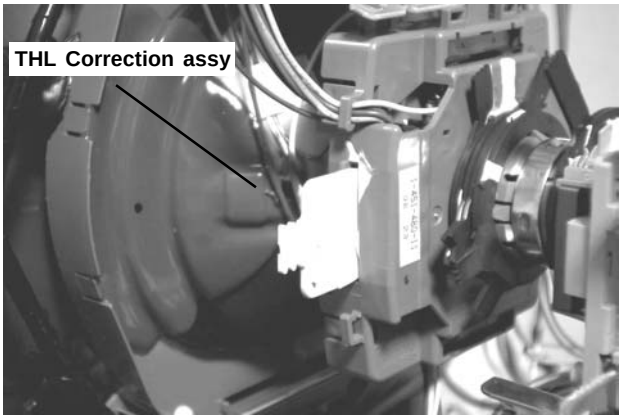



## HAMP Adjustment

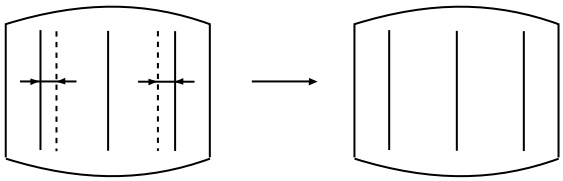


Adjust the HAMP using HAMPL and HAMPR registers in the Dynamic Convergence section of the service menu.

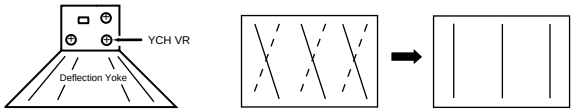
## HTIL Adjustment



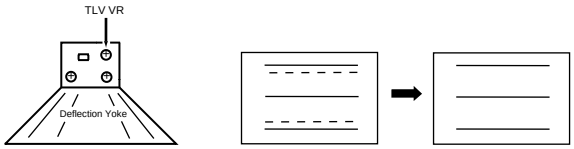

HTIL correction can be performed by adding a THL correction assembly to the Deflection yoke.



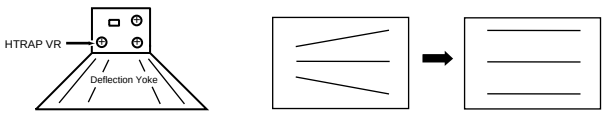
## YCH Adjustment




## TLV Adjustment

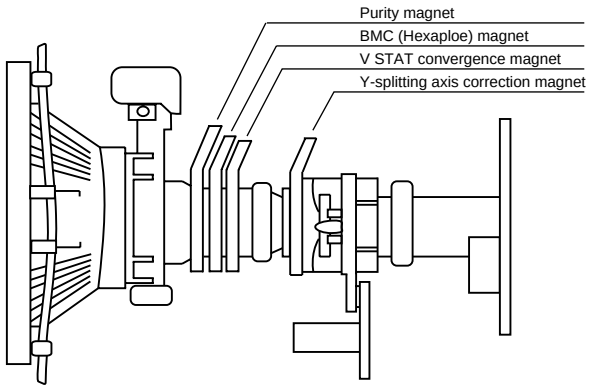



## H-TRAP Adjustment

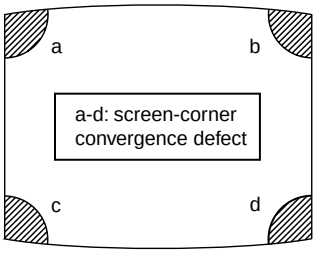


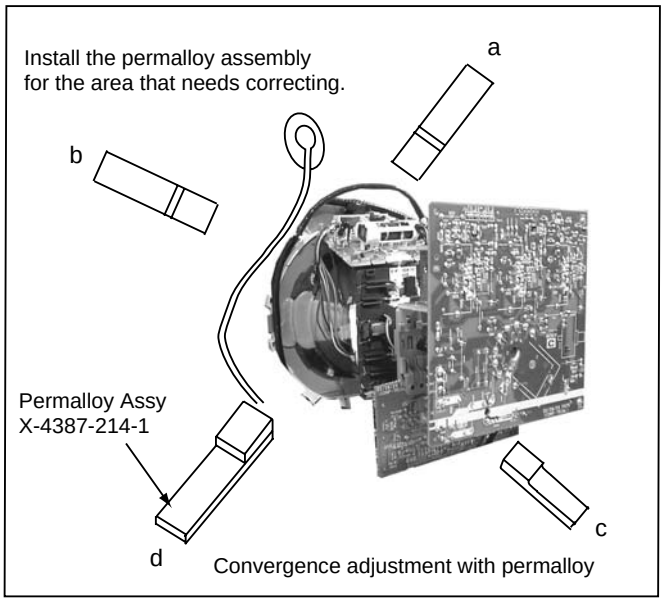

The H-TRAP should not be adjusted unless absolutely necessary as it affects the TLV settings.

## Layout of each control



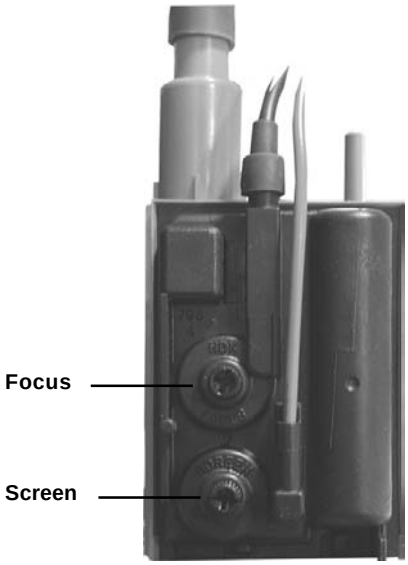

**Note :** If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloy magnets.




## 3-3. Focus Adjustment

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen.
   Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.




## 3-4. Screen (G2), White Balance

**[Adjustment in the service mode using the remote commander]**

### G2 adjustment

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 165V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control [SCREEN] located on the flyback transformer to the point just before the flyback return lines disappear.

### White balance adjustment for TV mode

1. Input an all-white signal from the pattern generator.
2. Program the Remote Commander for operation in Service Mode. [ See Page 20 ].
3. Enter into the 'Service Mode' by pressing 'VIDEO' button twice and 'MENU' on the Service Commander.
4. Select 'Service' from the on screen menu display and press 'Right Arrow'.
5. The 'Service' menu will appear on the screen.[See Page 21]
6. Set the 'Contrast' to MAX.
7. Set the 'R-Drive' to 50.
8. Adjust the 'G-Drive' and the 'B-Drive' so that the white balance becomes optimum.
9. Press the 'OK' button to write the data for each item.
10. Set the 'Contrast' to MIN.
11. Set the 'R-Cutoff' to 29.
12. Adjust the 'G-Cutoff', and the 'B-Cutoff' with the left and right buttons on the remote commander so that the white balance becomes optimum.
13. Press the 'OK' button to write the data for each item.

# SECTION 4 CIRCUIT ADJUSTMENTS

## 4-1. Electrical Adjustments

Service adjustments to this model can be performed using the supplied remote Commander RM-932.

### Programming the Remote Commander for Operation in Service Mode

1. Press the VCR/TV/DVD button until the TV LED lights.
2. Press and hold the yellow button for approx. 5 seconds until the TV LED flashes quickly.
3. Press 99999. All three LED's should light.
   The remote commander is now set to Service Mode.
4. To return the remote commander to normal operation mode repeat steps 1. and 2. then press 00000. All three LED's should light.
   The remote commander is now set to normal mode.

### Setting the TV into Service Mode

1. Program the remote commander for operation in Service Mode as described above.
2. Turn on the TV main power switch.
3. Press the video standby button on the remote commander twice.
   'TT __' will appear in the upper right corner of the screen.
   Other status information will also be displayed.
4. Press 'MENU' on the remote commander to obtain the following menu on the screen.

```
Geometry
Service
Scanrate
DAC
Dyn. Conv.
PiP
Sound
IF adjust
Error Menu

AE6B v0.14 (Jun 2001)
Factory data FFh  FFh
MSP Device : MSP3411G
```

5. Move to the corresponding adjustment item using the up or down arrow buttons on the Remote Commander.
6. Press the right arrow button to enter into the required menu item.
7. Press the 'Menu' button on the Remote Commander to quit the Service Mode when all adjustments have been completed.

**Note :**

After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

**GEOMETRY**

| | | |
|---|---|---|
| ABL TH | (0, 3) | 0 |
| ABL MODE | (0, 3) | 0 |
| P ABL | (0, 15) | 15 |
| V SIZE | (0, 63) | 35 |
| V POSITION | (0, 63) | 33 |
| V COMP | (0, 3) | 1 |
| V LIN | (0, 15) | 7 |
| S CORRECTION | (0, 15) | 7 |
| H SIZE | (0, 63) | 44 |
| PIN AMP | (0, 63) | 32 |
| UP CORNERPIN | (0, 63) | 29 |
| M PIN | (0, 3) | 2 |
| LO CORNERPIN | (0, 63) | 29 |
| TRAPEZIUM | (0, 15) | 2 |
| H POSITION | (0, 63) | 40 |
| AFC BOW | (0, 15) | 8 |
| AFC ANGLE | (0, 15) | 9 |
| LEFT BLK | (0, 63) | 34 |
| RIGHT BLK | (0, 63) | 17 |
| V ASPECT | (0, 63) | 47 |
| AKBTIM1 | (0, 3) | 2 |
| AKBTIM2 | (0, 1) | 0 |
| *IKR* | | *1* |
| *HNG* | | *0* |
| *VNG* | | *0* |

**DYN. CONV.**

| | | |
|---|---|---|
| RANGE | (0, 63) | 63 |
| YupL | (0, 1) | 0 |
| VAL | (0, 63) | 30 |
| YlowL | (0, 1) | 0 |
| VAL | (0, 63) | 31 |
| MBOWupL | (0, 1) | 0 |
| VAL | (0, 63) | 31 |
| MBOWlowL | (0, 1) | 0 |
| VAL | (0, 63) | 32 |
| HAMPL | (0, 1) | 0 |
| VAL | (0, 63) | 37 |
| YupR | (0, 1) | 0 |
| VAL | (0, 63) | 30 |
| YlowR | (0, 1) | 0 |
| VAL | (0, 63) | 30 |
| MBOWupR | (0, 1) | 0 |
| VAL | (0, 63) | 32 |
| MBOWlowR | (0, 1) | 0 |
| VAL | (0, 63) | 32 |
| HAMPR | (0, 1) | 0 |
| VAL | (0, 63) | 36 |
| UP Y | (0, 1) | 0 |
| VAL | (0, 63) | 31 |
| LOW Y | (0, 1) | 0 |
| VAL | (0, 63) | 33 |
| H STAT | (0, 1) | 0 |
| VAL | (0, 63) | 33 |
| UP CORR | (0, 1) | 0 |
| VAL | (0, 63) | 34 |
| LOW CORR | (0, 1) | 0 |
| VAL | (0, 63) | 19 |

**IF ADJUST**

| | |
|---|---|
| Automute | 1 |
| Audio Gain | 0 |
| L Gating | 0 |

**SERVICE**

| | | |
|---|---|---|
| SUB COL | (0, 63) | Adj |
| SUB HUE | (0, 63) | 31 |
| SUB SHARP | (0, 63) | 30 |
| SUB BRIGHT | (0, 63) | 13 |
| SUB CONT | (0, 15) | 12 |
| R-DRIVE | (0, 63) | 50 |
| G-DRIVE | (0, 63) | Adj |
| B-DRIVE | (0, 63) | Adj |
| R CUTOFF | (0, 63) | 28 |
| G CUTOFF | (0, 63) | 24 |
| B CUTOFF | (0, 63) | 46 |
| Br TXT | (0, 15) | 7 |
| Br OSD | (0, 15) | 10 |

**DAC**

| | | |
|---|---|---|
| *CONFIG* | *00000000* | |
| MPIN CONT | (0, 255) | 96 |
| HLIN | (0, 255) | 83 |
| HTRAP | (0, 255) | 127 |
| ROT. COIL | (0, 255) | 130 |
| PHOCUS PH | (0, 255) | 90 |

**SOUND**

| | | |
|---|---|---|
| M-N | (0, 511) | 200 |
| M-D | (-128, -1) | -20 |
| M-S | (+0, +127) | +20 |
| S-M | (+0, +127) | +10 |
| D-M | (-128, -1) | -10 |
| N-M | (0, 1023) | 496 |
| BBE | (+0, +68) | +28 |
| B1 | (-96, +96) | +0 |
| B2 | (-96, +96) | +0 |
| B3 | (-96, +96) | +0 |
| B4 | (-96, +96) | +0 |
| B5 | (-96, +96) | +0 |
| SW L | (-128, +0) | +0 |
| SW F | (+5, +40) | +30 |
| NICAM C AD | 10001 | |
| NICAM Error | (0, 2047) | 0 |
| Stereo | (-128, +127) | +0 |
| Status | 0000000110 | |

**ERROR MENU**

| | | | |
|---|---|---|---|
| E02 | OCP | (0, 255) | 0 |
| E03 | OVP | (0, 255) | 0 |
| E04 | VSYNC | (0, 255) | 0 |
| E05 | IKR | (0, 255) | 0 |
| E06 | IIC | (0, 255) | 0 |
| E07 | NVM | (0, 255) | 0 |
| E08 | HPROT | (0, 255) | 0 |
| E09 | TUNER | (0, 255) | 0 |
| E10 | SOUNDP | (0, 255) | 0 |
| E11 | - | (0, 255) | 0 |
| E12 | SCANRATE | (0, 255) | 0 |
| E13 | DAC | (0, 255) | 0 |
| E14 | BACKEND | (0, 255) | 0 |
| E15 | DYN CON | (0, 255) | 0 |
| E16 | PIP | (0, 255) | 0 |

**WORKING TIME**

| | |
|---|---|
| HOURS | 14 |
| MINUTES | 7 |

## Sub Brightness Adjustment

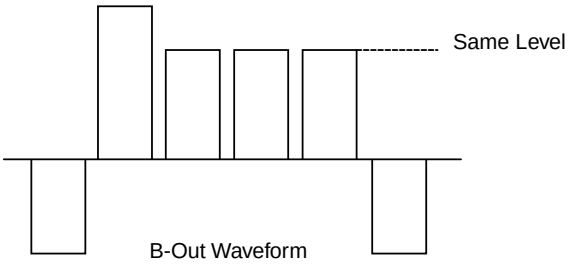
1. Input a Monoscope pattern.
2. Program the Remote Commander for operation in Service Mode. [ See Page 20 ].
3. Press 'VIDEO' 'VIDEO' 13 on the Remote Commander.
4. Adjust the 'Sub-Brightness' data so that there is barely a difference between the 0 IRE and 10 IRE signal levels.

## Sub Contrast Adjustment

1. Input a video signal that contains a small 100% white area on a black background.
2. Connect a digital voltmeter to Pin 10 of J7375 [C Board].
3. Program the Remote Commander for operation in Service Mode. [ See Page 20 ].
4. Adjust the Sub-Contrast [ Using 'VIDEO' 'VIDEO' '11' ] to obtain a voltage of 105 +/- 5V.

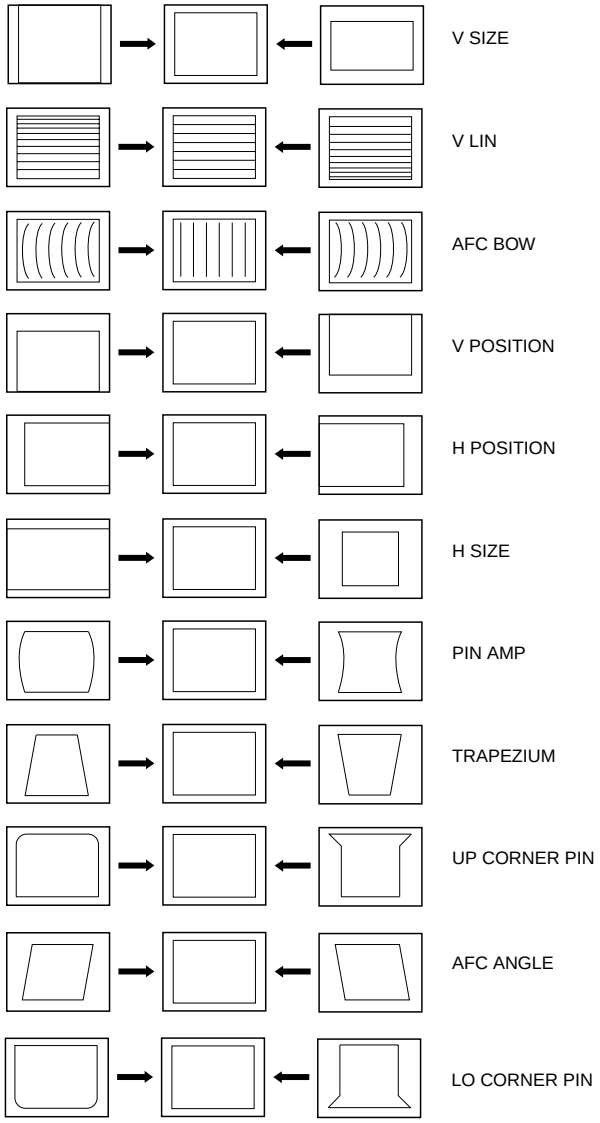
## Sub Colour Adjustment

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to Pin 6 of CN7001 [A Board].
3. Program the Remote Commander for operation in Service Mode. [ See Page 20 ].
4. Adjust the 'Sub Colour' [ Using 'VIDEO' 'VIDEO' '12' ] so that the Cyan, Magenta and Blue colour bars are of equal levels as indicated below.



## Deflection System Adjustment

1. Program the Remote Commander for operation in Service Mode. [ See Page 20 ] and enter into the 'Geometry' service menu.
2. Select and adjust each item in order to obtain the optimum image.



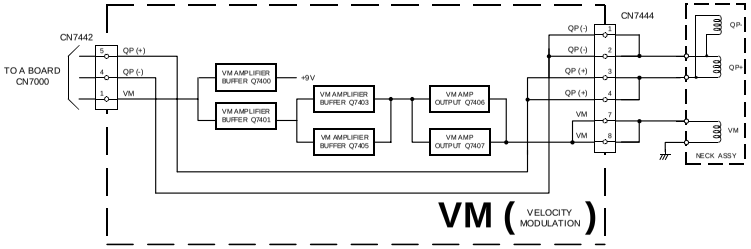

| GEOMETRY | | |
|---|---|---|
| ABL TH | (0, 3) | 0 |
| ABL MODE | (0, 3) | 0 |
| P ABL | (0, 15) | 15 |
| V SIZE | (0, 63) | 35 |
| V POSITION | (0, 63) | 33 |
| V COMP | (0, 3) | 1 |
| V LIN | (0, 15) | 7 |
| S CORRECTION | (0, 15) | 7 |
| H SIZE | (0, 63) | 44 |
| PIN AMP | (0, 63) | 32 |
| UP CORNERPIN | (0, 63) | 29 |
| M PIN | (0, 3) | 2 |
| LO CORNERPIN | (0, 63) | 29 |
| TRAPEZIUM | (0, 15) | 2 |
| H POSITION | (0, 63) | 40 |
| AFC BOW | (0, 15) | 8 |
| AFC ANGLE | (0, 15) | 9 |
| LEFT BLK | (0, 63) | 34 |
| RIGHT BLK | (0, 63) | 17 |
| V ASPECT | (0, 63) | 47 |
| AKBTIM1 | (0, 3) | 2 |
| AKBTIM2 | (0, 1) | 0 |
| *IKR* | | *1* |
| *HNG* | | *0* |
| *VNG* | | *0* |

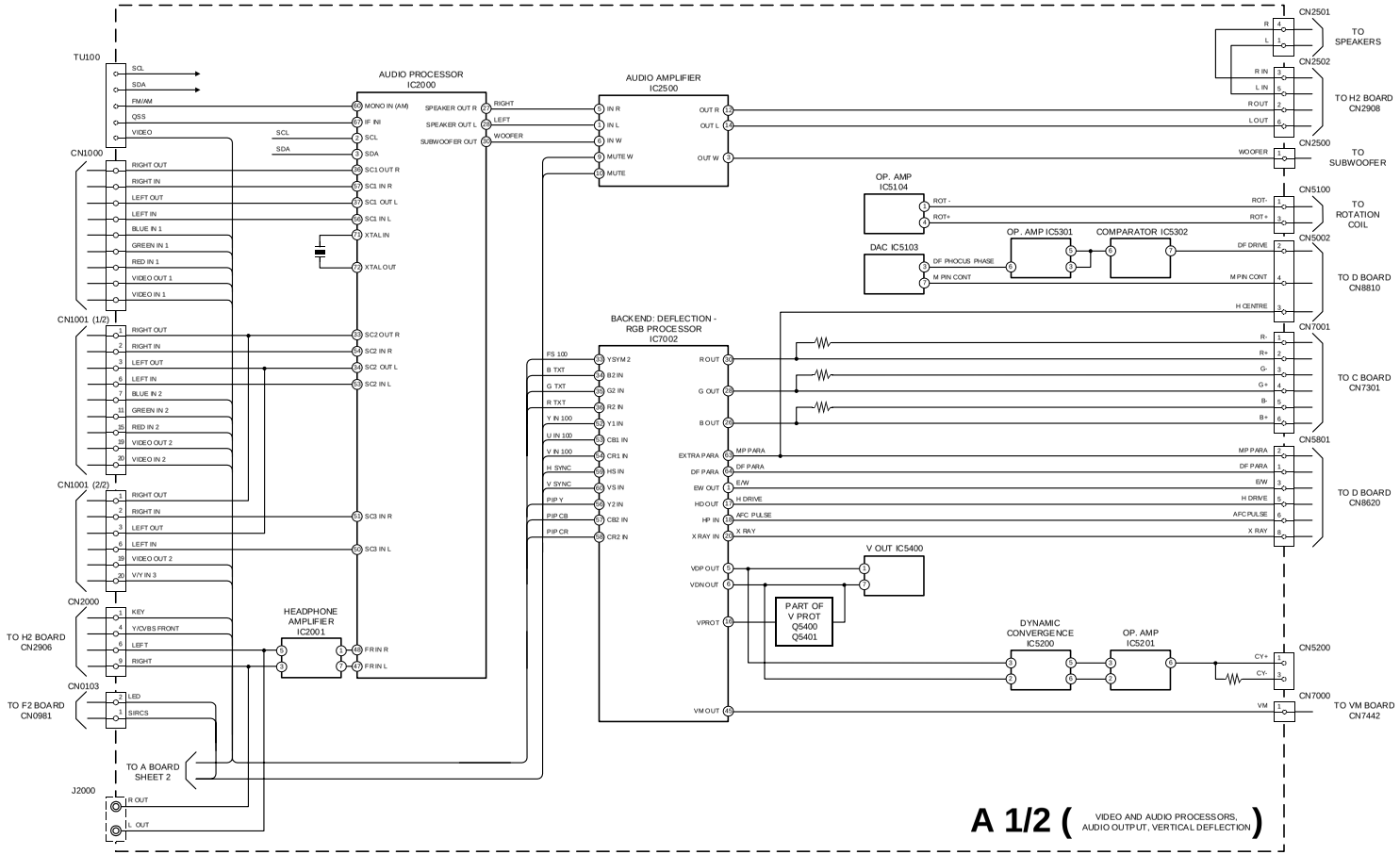
## 4-2. TEST MODE 2:

Test Mode 2 is available by programming the Remote Commander for operation in Service Mode [ As shown on Page 20 ] then pressing the 'VIDEO' button twice, OSD 'TT' appears. The functions described below are available by selecting the two numbers. To release the 'Test mode 2', press 00, 10, 20 ... twice or switch the TV set into Stand-by mode. In 'TT Menu' mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the Menu to reappear. The function is kept even when the menu is not displayed on screen !!.

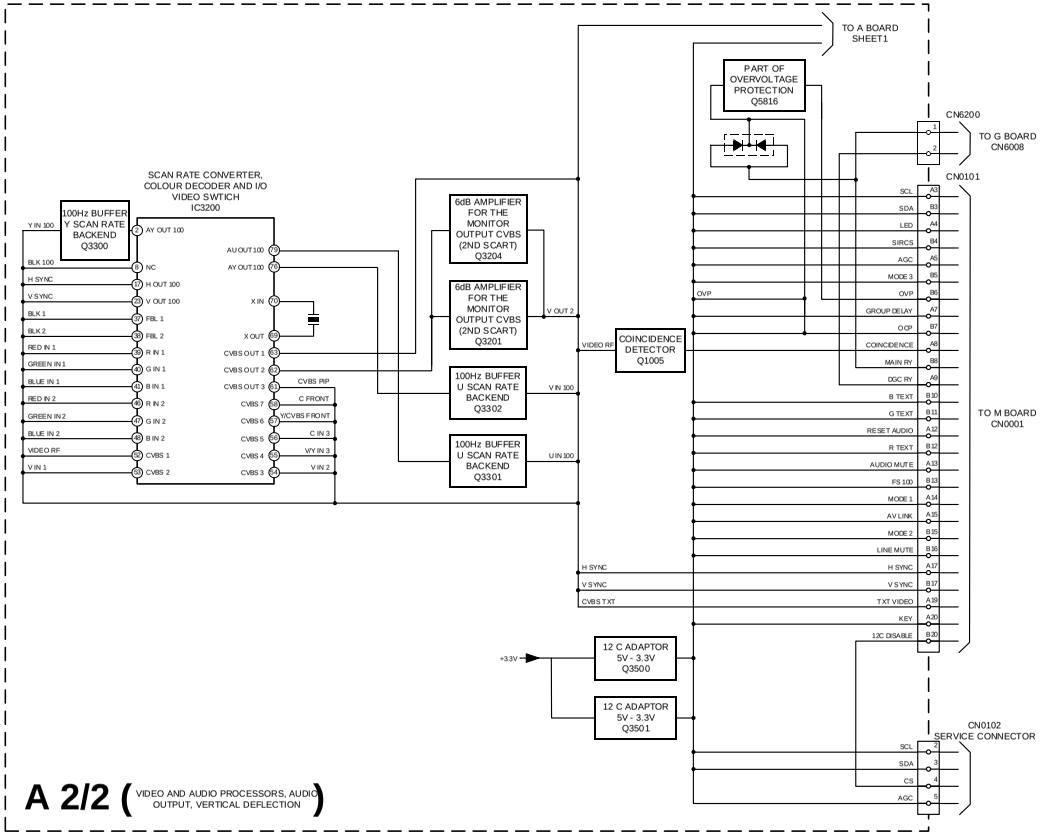
| | |
|---|---|
| **00** | 'TT' mode off |
| **01** | Picture maximum |
| **02** | Picture minimum |
| **03** | Set speaker/headphone Volume to 35% |
| **04** | Set speaker/headphone Volume to 50% |
| **05** | Set speaker/headphone Volume to 65% |
| **06** | Set speaker/headphone Volume to 80% |
| **07** | Ageing mode |
| **08** | Shipping Condition |
| **11** | Sub picture adjustment |
| **12** | Sub colour adjustment |
| **13** | Sub Brightness adjustment |
| **14** | Text H Position adjustment |
| **15** | Rotation Coil Test |
| **16** | Picture level 50% |
| **19** | Factory Mode Enable/Disable |
| **21** | Destination ADEKR |
| **22** | Destination BL |
| **23** | Destination ADEKR |
| **24** | Destination U |
| **25** | Destination ADEKR |
| **26** | Destination BL |
| **27** | Destination ADEKR |
| **28** | Destination ADEKR |
| **31** | Auto Shutoff Enable/Disable |
| **36** | Velocity Modulation (VM) OFF/ON test |
| **41** | Re-initialise NVM |
| **43** | Select Dual A sound |
| **44** | Select Dual B sound |
| **45** | Select Mono sound |
| **46** | Select Stereo sound |
| **48** | Set NVM as non virgin |
| **49** | Set NVM as virgin |
| **53** | FM Overmodulation Enable/Disable |
| **55** | Tuner selection (SONY/ALPS) |
| **59** | Select Model 3 Scarts + PIP or 2 Scarts |
| **68** | Enable/Disable X26 countermeasure (N problem) |
| **73** | Enable Zweiton D/K2 system (6.5/6.74) |
| **74** | Enable Zweiton D/K3 system (6.5/5.74) |
| **78** | Balance full right |
| **79** | Balance full left |
| **87** | Local keys test |
| **99** | Display Error and Working Time menu |

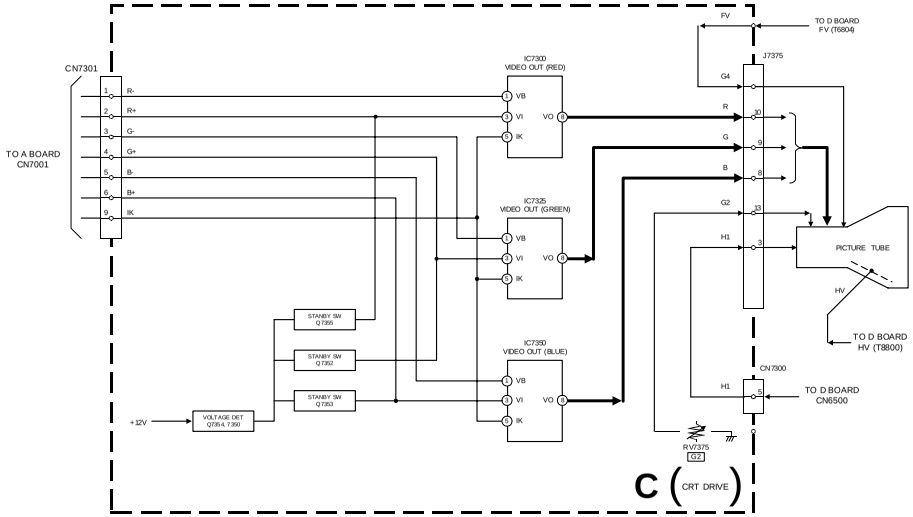
## 5-1. BLOCK DIAGRAMS (1)

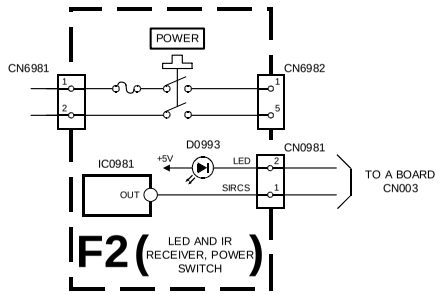


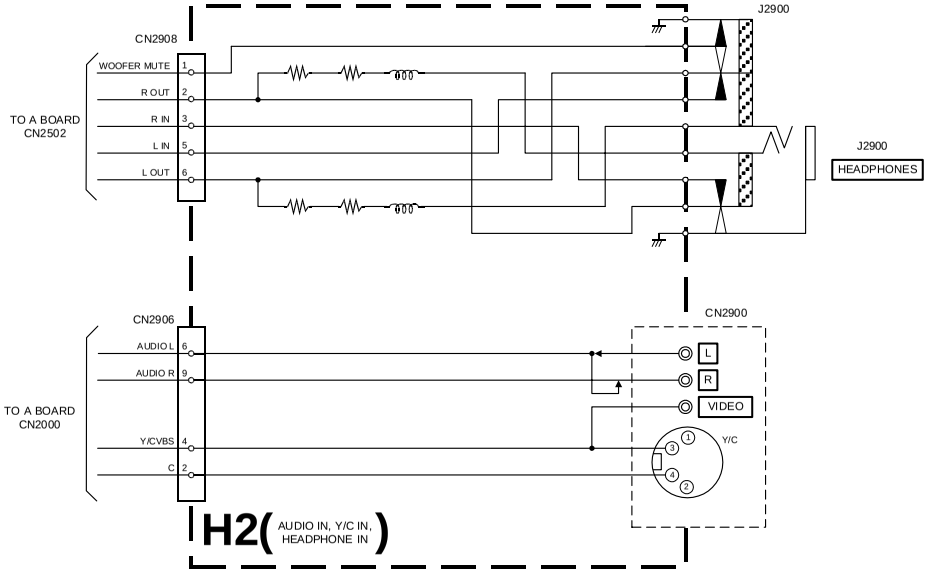



## 5-1. BLOCK DIAGRAMS (2)

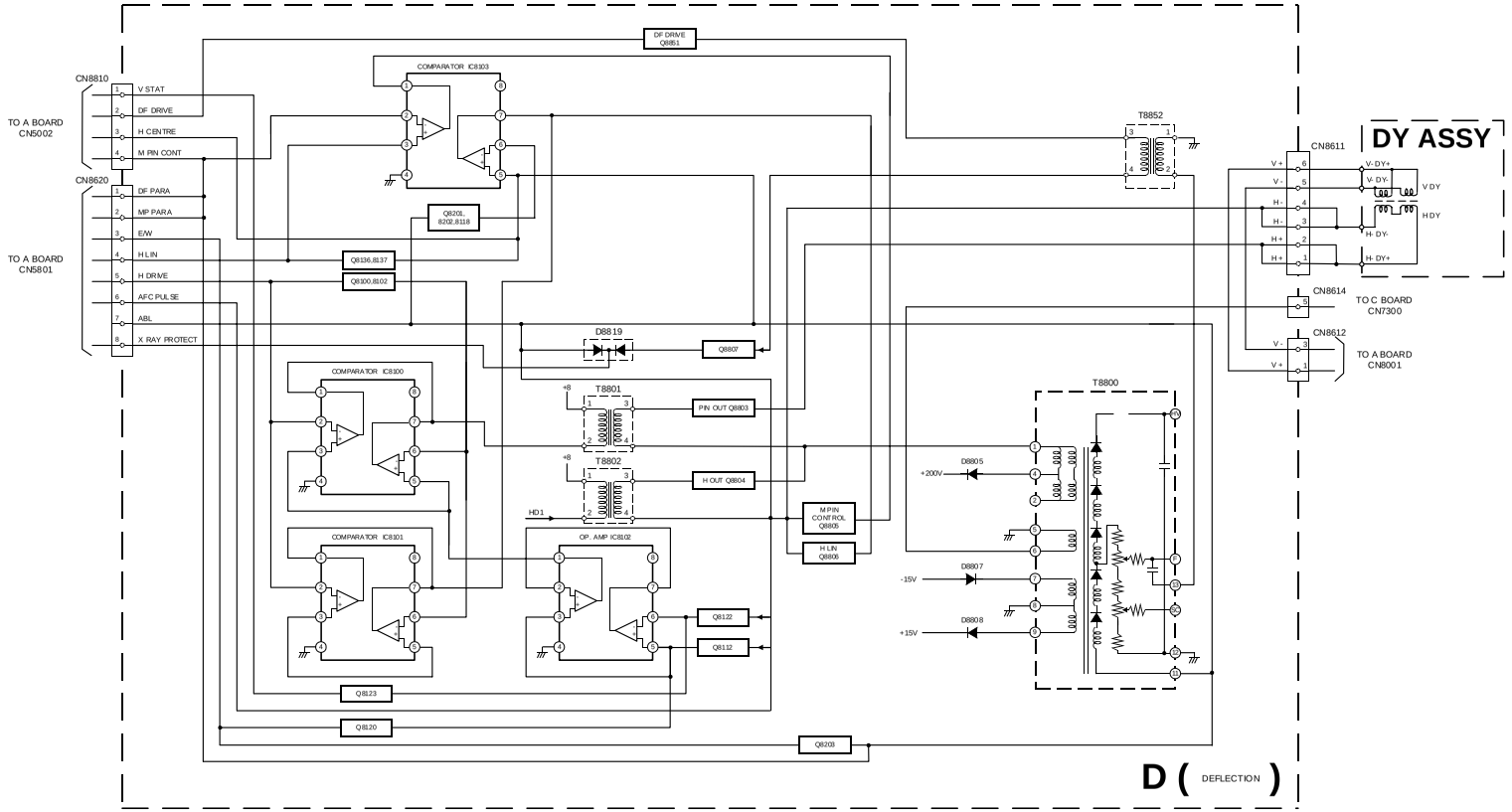

TO A BOARD SHEET1
PART OF OVERVOLTAGE PROTECTION Q5816
CN6200
TO G BOARD CN6008
CN0101
SCAN RATE CONVERTER, COLOUR DECODER AND I/O VIDEO SWTICH IC3200
100Hz BUFFER Y SCAN RATE BACKEND Q3300
6dB AMPLIFIER FOR THE MONITOR OUTPUT CVBS (2ND SCART) Q3204
6dB AMPLIFIER FOR THE MONITOR OUTPUT CVBS (2ND SCART) Q3201
100Hz BUFFER U SCAN RATE BACKEND Q3302
100Hz BUFFER U SCAN RATE BACKEND Q3301
COINCIDENCE DETECTOR Q1005
TO M BOARD CN0001
12 C ADAPTOR 5V - 3.3V Q3500
12 C ADAPTOR 5V - 3.3V Q3501
CN0102 SERVICE CONNECTOR
A 2/2 ( VIDEO AND AUDIO PROCESSORS, AUDIO OUTPUT, VERTICAL DEFLECTION )

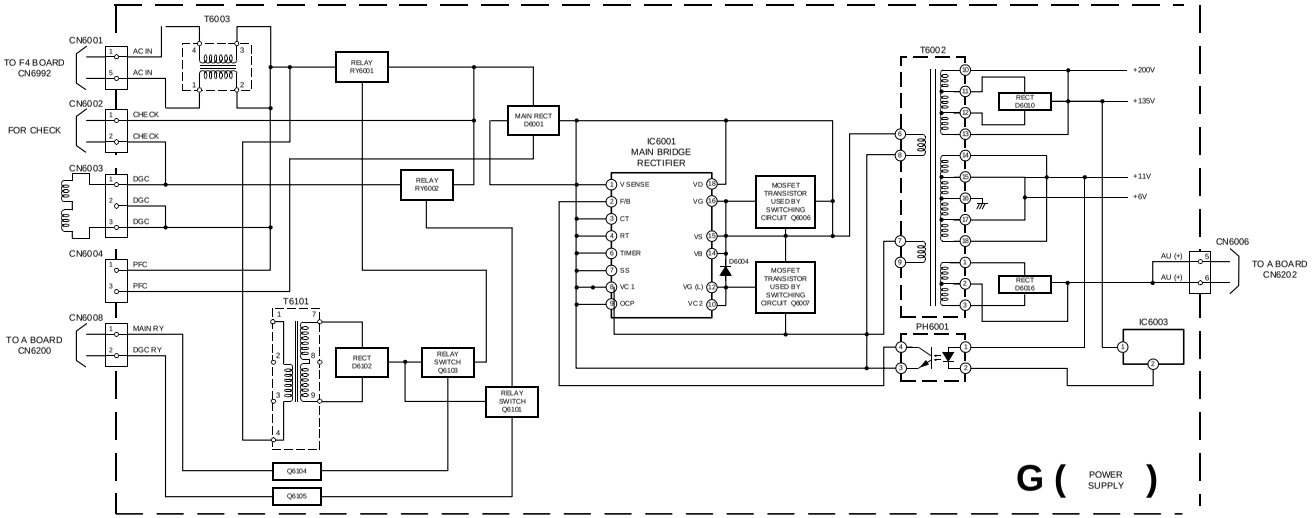


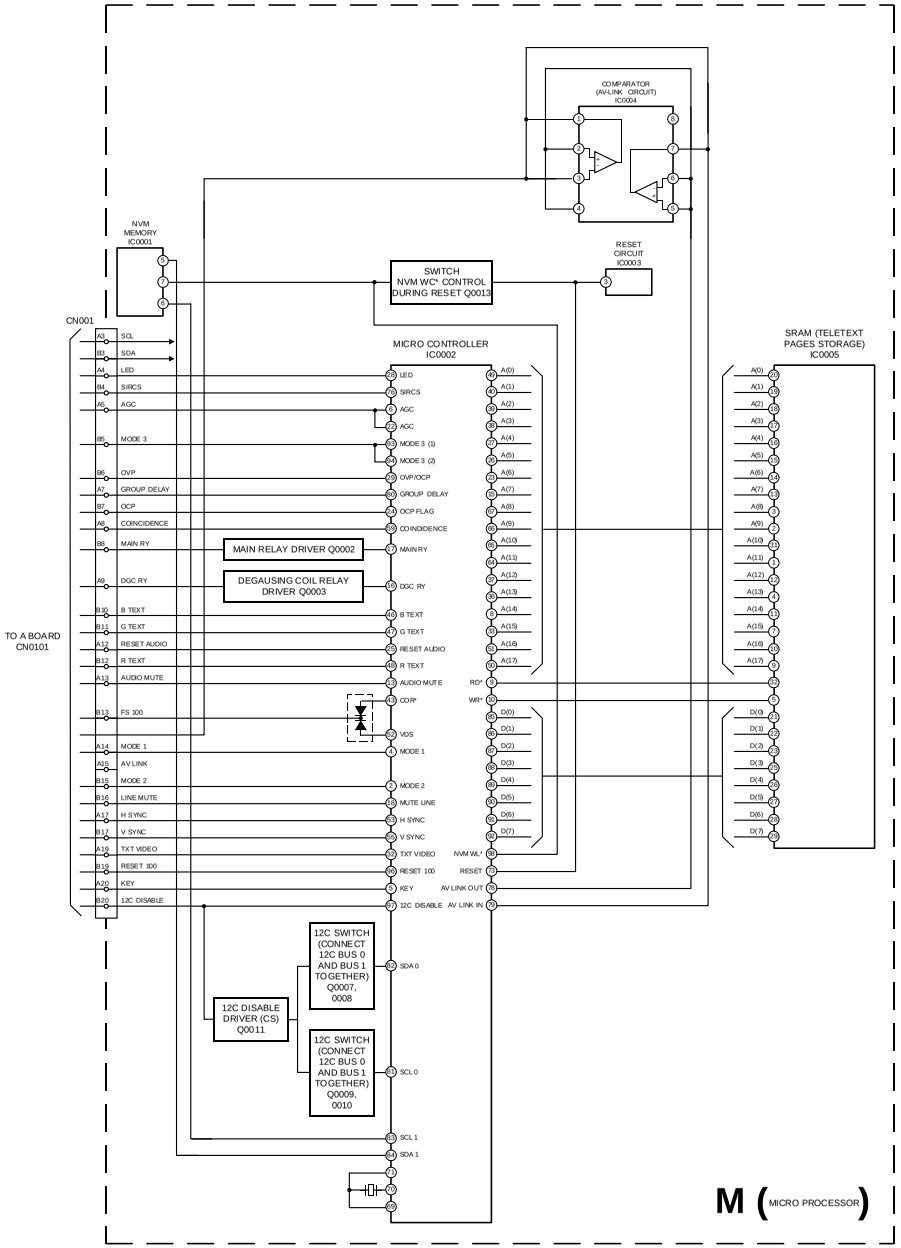



## 5-1. BLOCK DIAGRAMS (3)

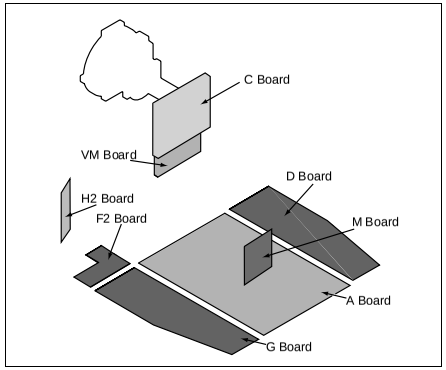


## 5-1. BLOCK DIAGRAMS (4)


COMPARATOR (AV-LINK CIRCUIT) IC0004
NVM MEMORY IC0001
RESET CIRCUIT IC0003
SWITCH NVM WC* CONTROL DURING RESET Q0013
CN001
MICRO CONTROLLER IC0002
SRAM (TELETEXT PAGES STORAGE) IC0005
MAIN RELAY DRIVER Q0002
DEGAUSING COIL RELAY DRIVER Q0003
TO A BOARD CN0101
12C SWITCH (CONNECT 12C BUS 0 AND BUS 1 TOGETHER) Q0007, 0008
12C DISABLE DRIVER (CS) Q0011
12C SWITCH (CONNECT 12C BUS 0 AND BUS 1 TOGETHER) Q0009, 0010
M (MICRO PROCESSOR)

## 5-2. CIRCUIT BOARD LOCATION




## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

**Note :**

- All capacitors are in µF unless otherwise noted.
- pF : µµF 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

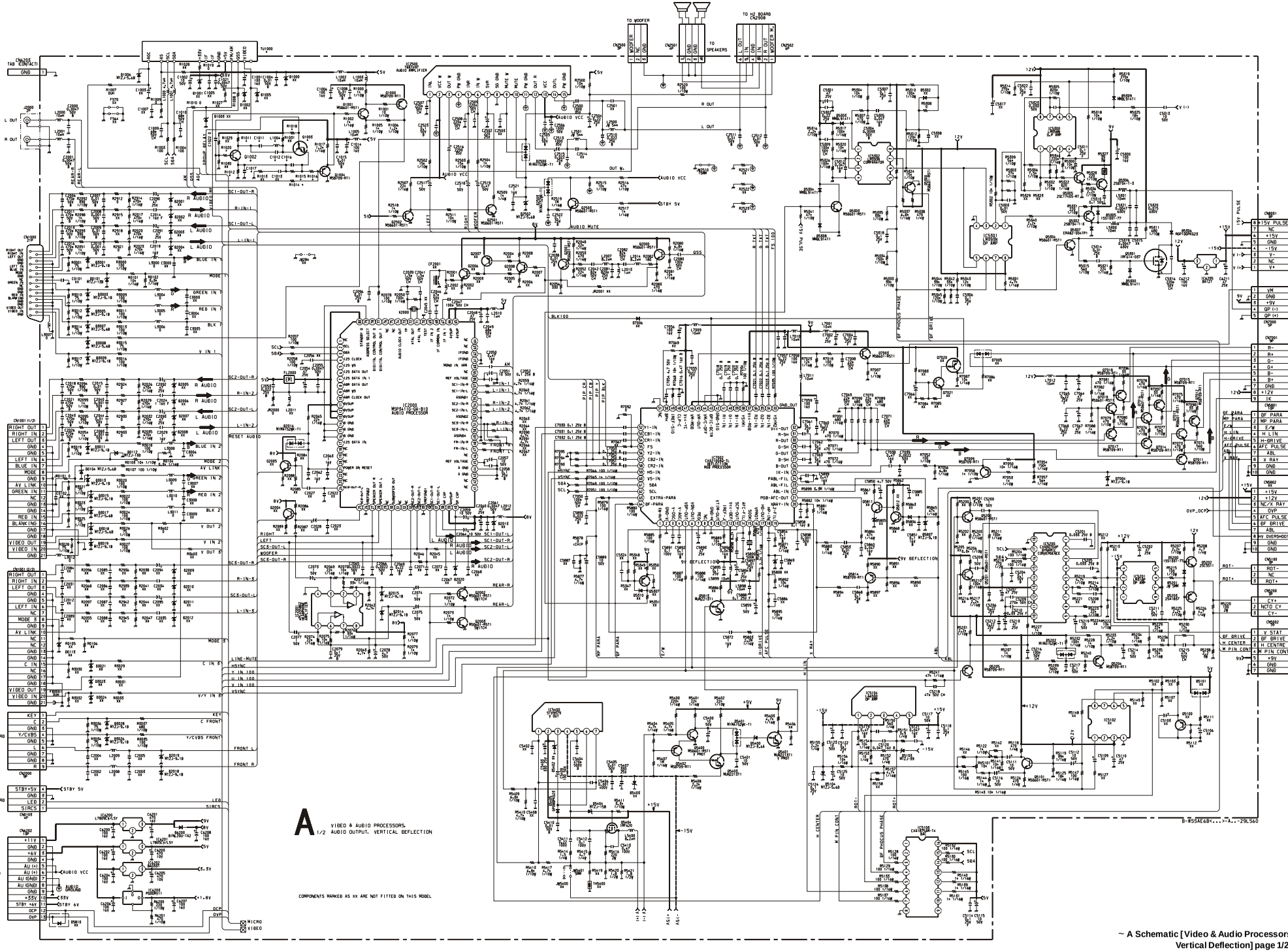
- Chip resistors are 1/10W
- All resistors are in ohms.
  k = 1000 ohms, M = 1000,000 ohms
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerences.
- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

**Reference Information**

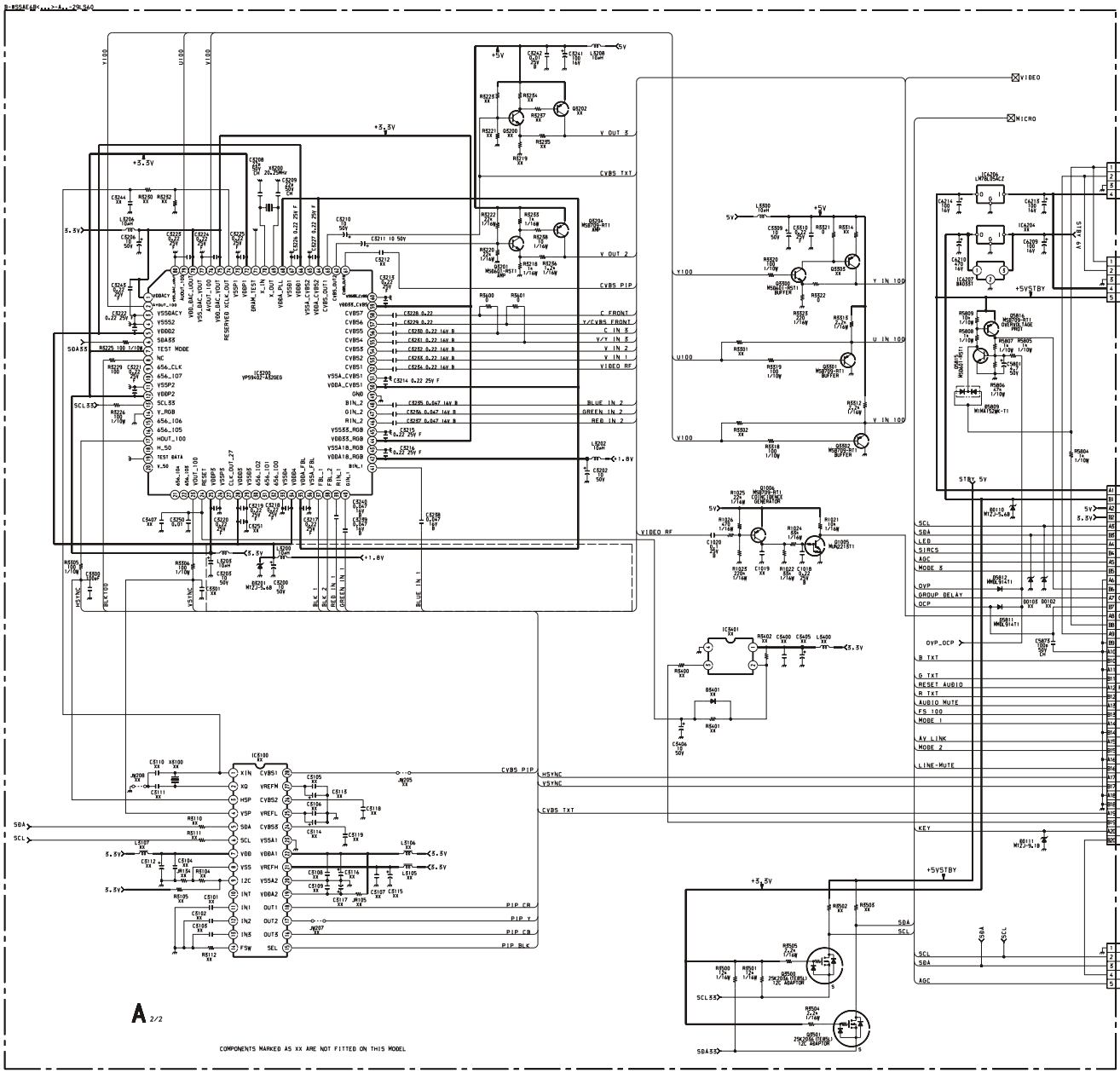
| | | |
|---|---|---|
| **RESISTOR** | **RN** | : METAL FILM |
| | **RC** | : SOLID |
| | **FPRD** | : NON FLAMMABLE CARBON |
| | **FUSE** | : NON FLAMMABLE FUSIBLE |
| | **RS** | : NON FLAMMABLE METAL OXIDE |
| | **RB** | : NON FLAMMABLE CEMENT |
| | **RW** | : NON FLAMMABLE WIREWOUND |
| | | : ADJUSTMENT RESISTOR |
| **COIL** | **LF-8L** | : MICRO INDUCTOR |
| **CAPACITOR** | **TA** | : TANTALUM |
| | **PS** | : STYROL |
| | **PP** | : POLYPROPYLENE |
| | **PT** | : MYLAR |
| | **MPS** | : METALIZED POLYESTER |
| | **MPP** | : METALIZED POLYPROPYLENE |
| | **ALB** | : BIPOLAR |
| | **ALT** | : HIGH TEMPERATURE |
| | **ALR** | : HIGH RIPPLE |

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

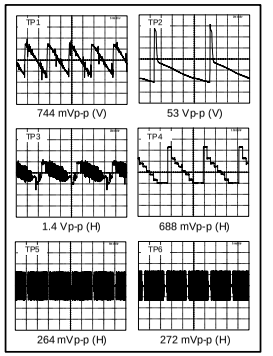
**Note :** Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié. specified.


A
1/2 VIDEO & AUDIO PROCESSORS, AUDIO OUTPUT, VERTICAL DEFLECTION
COMPONENTS MARKED AS xx ARE NOT FITTED ON THIS MODEL
B-BSSAE6B<...>A..-29L560

~ A Schematic [Video & Audio Processors, Audio Output, Vertical Deflection] page 1/2 ~



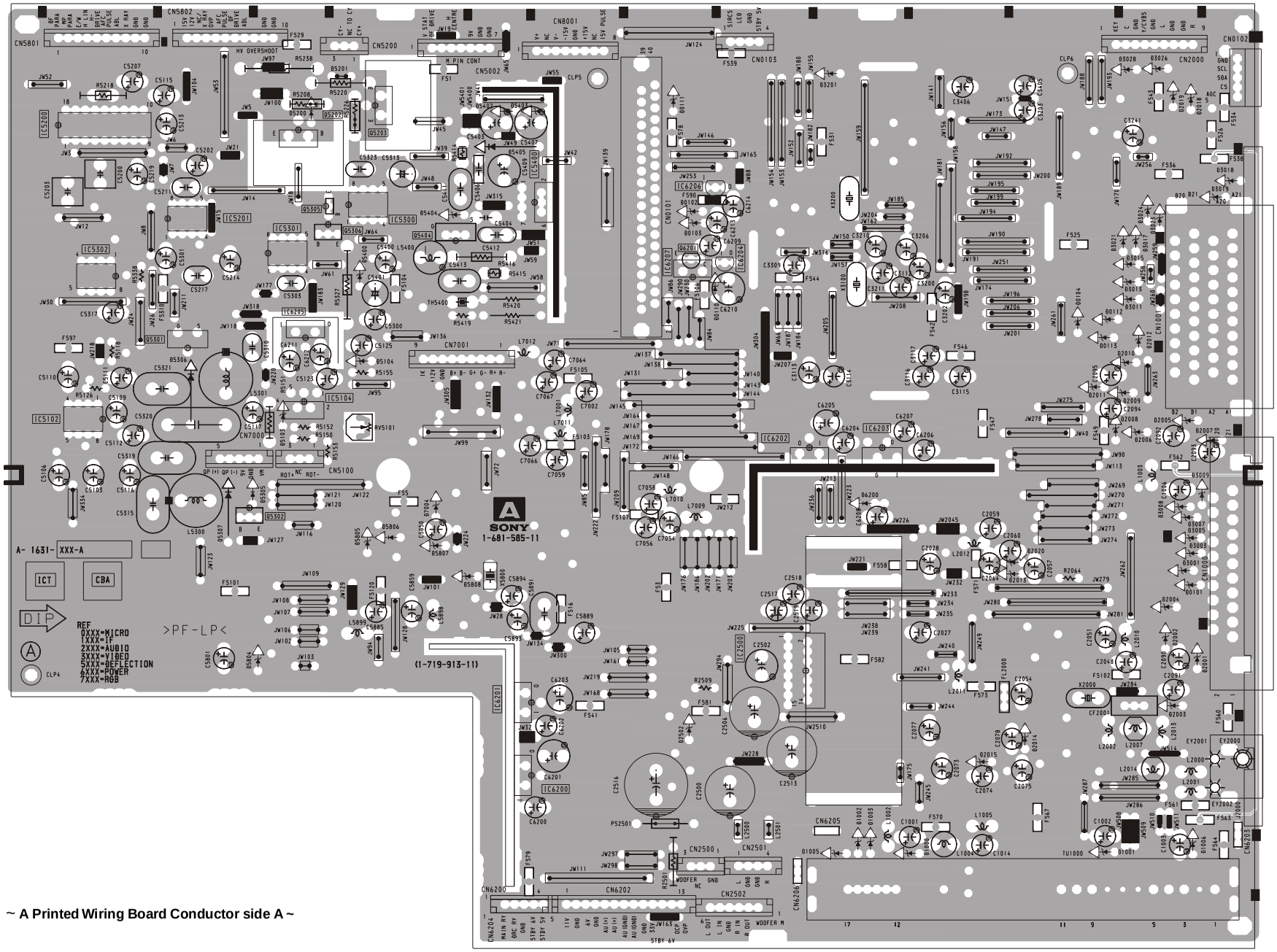

## ~ A Board Waveforms ~



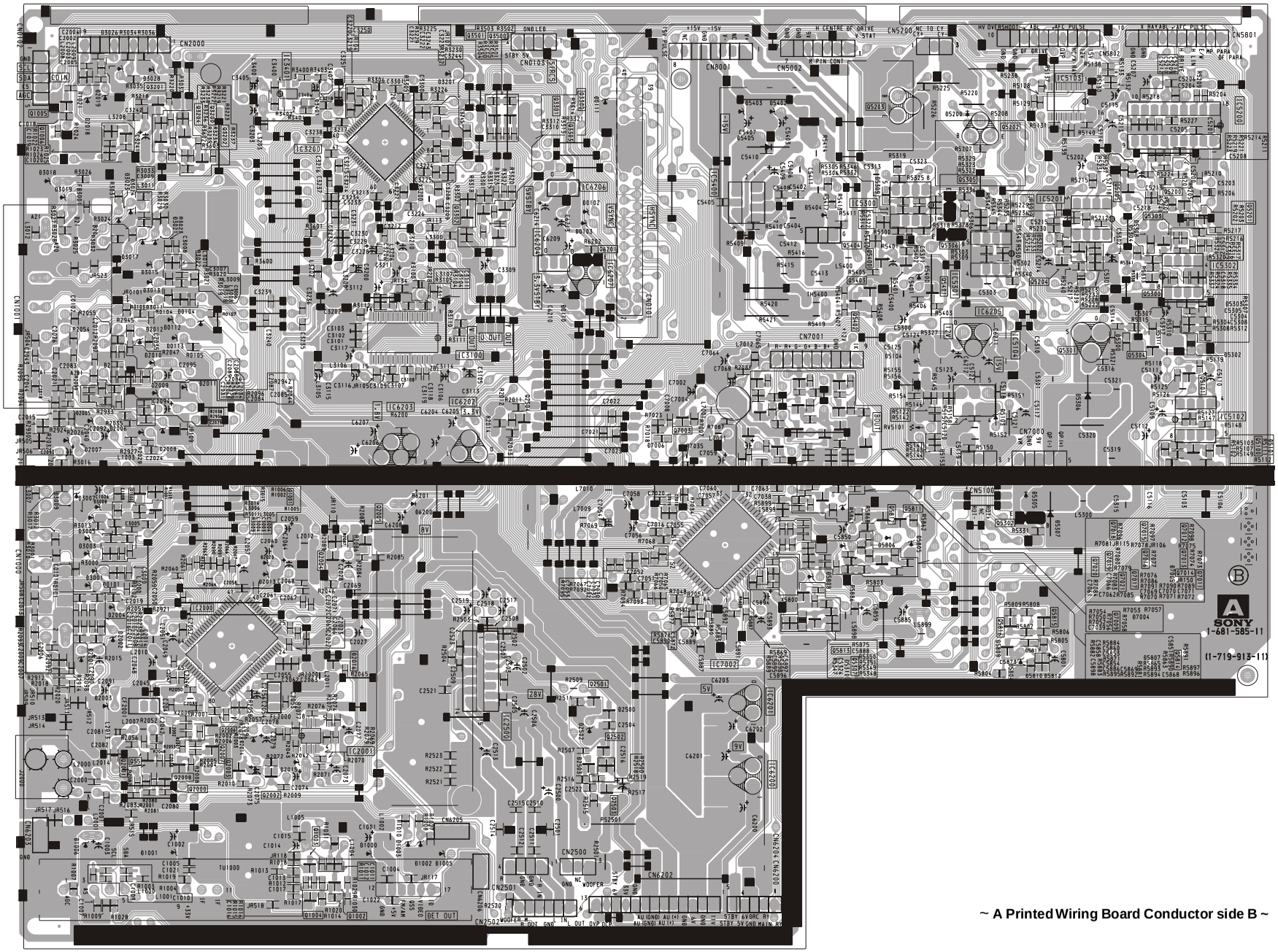

## ~ A Board Difference Table ~

| Ref | 29LS60B | 29LS60E | 29LS60K |
|---|---|---|---|
| C1011 | 120PF | - | - |
| C1012 | 56PF | - | - |
| C1016 | 10PF | - | - |
| C1017 | 68PF | - | - |
| L1004 | 18UH | - | - |
| Q1002 | MSD601-RST1 | - | - |
| Q1003 | DTC114EKA-T146 | - | - |
| R1011 | 330 | - | - |
| R1012 | 330 | - | - |
| R1014 | - | SHORT 0 | SHORT 0 |
| R1015 | 470 | - | - |
| R1016 | 100 | - | - |
| R1018 | 2.2K | - | - |
| R1020 | SHORT 0 | - | - |
| TU1000 | BTF-EF411 | BTF-EC411 | BTF-EC411 |

**~ A Schematic [ Video & Audio Processors, Audio Output, Vertical Deflection] page 2/2 ~**

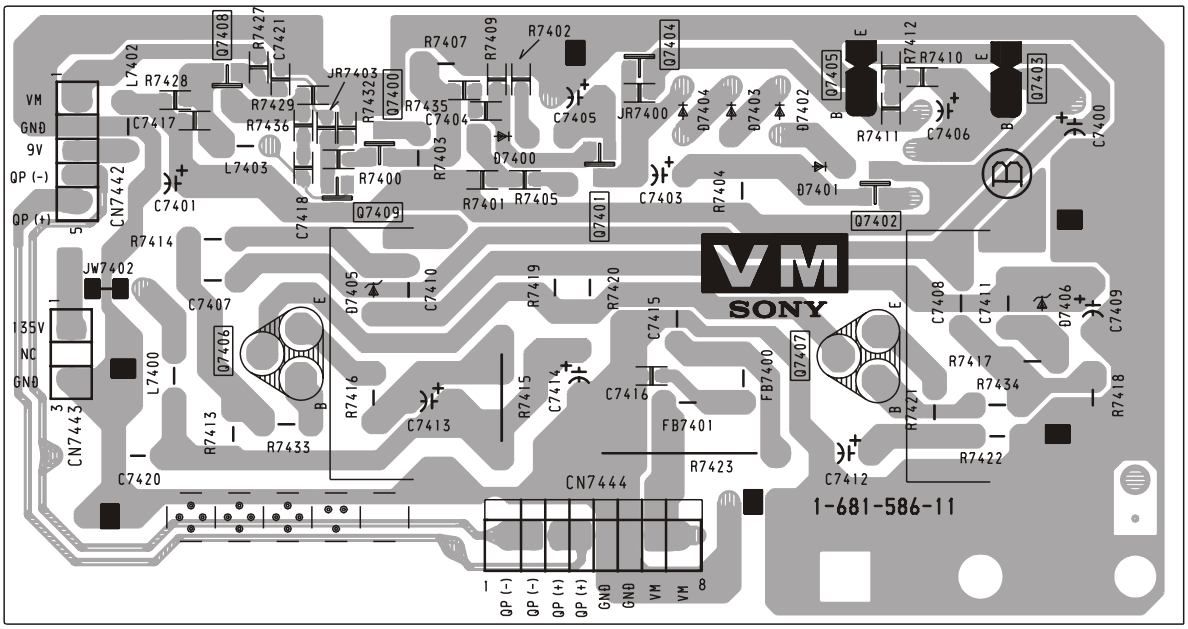



~ A Printed Wiring Board Conductor side A ~

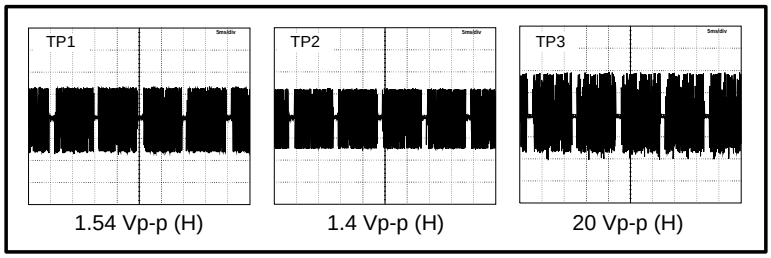


~ A Printed Wiring Board Conductor side B ~

## ~ VM Printed Wiring Board Conductor side ~




## ~ VM Board Waveforms ~




## ~ VM Board Voltage Table ~

| Ref | (e)(s) | (b)(g) | (c)(d) |
|---|---|---|---|
| Q7400 | 5.0 | 5.7 | 8.7 |
| Q7401 | 0.9 | 1.5 | 4.1 |
| Q7402 | 5.5 | 6.1 | 8.9 |
| Q7403 | 5.1 | 5.5 | 8.9 |
| Q7404 | 4.7 | 4.1 | 0 |
| Q7405 | 5.1 | 4.7 | 0 |
| Q7406 | 134 | 133.8 | 68 |
| Q7407 | 1.1 | 1.4 | 68 |
| Q7408 | 6.3 | 5.6 | 2.5 |
| Q7409 | 5.7 | 6.3 | 0.9 |

## ~ A Board Location Table (A Side) ~

| DIODE | | D2014 | K - 9 | D3005 | M - 7 | D3017 | M - 4 | D3028 | M - 2 | D5306 | C - 5 | D7004 | F - 7 | IC5301 | D - 4 | IC6206 | H - 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D0101 | M - 7 | D2015 | K - 9 | D3007 | M - 7 | D3018 | N - 3 | D3201 | J - 2 | D5307 | C - 6 | D5809 | K - 8 | IC5302 | B - 4 | IC6207 | H - 4 |
| D0104 | L - 4 | D2018 | M - 2 | D3008 | M - 7 | D3019 | N - 3 | D5103 | D - 6 | D5400 | E - 4 | IC | | IC5400 | G - 4 | TRANSISTOR | |
| D0110 | I - 4 | D2019 | M - 2 | D3009 | N - 7 | D3021 | M - 4 | D5104 | E - 5 | D5404 | F - 3 | IC5104 | D - 6 | IC6201 | G - 10 | Q5202 | E - 2 |
| D0111 | H - 2 | D2502 | H - 9 | D3011 | M - 4 | D3023 | M - 4 | D5200 | D - 2 | D5405 | F - 3 | IC5200 | B - 3 | IC6202 | I - 6 | Q5301 | C - 5 |
| D0112 | M - 4 | D3001 | M - 7 | D3013 | M - 4 | D3024 | M - 4 | D5201 | E - 2 | D5807 | F - 7 | IC5201 | C - 4 | IC6203 | J - 6 | Q5306 | E - 4 |
| D0113 | M - 5 | D3003 | M - 7 | D3015 | M - 4 | D3026 | M - 2 | D5305 | D - 6 | D6200 | J - 6 | IC5300 | E - 4 | IC6205 | D - 5 | Q5404 | F - 4 |
| D1006 | M - 10 | | | | | | | | | | | | | | | | |

## ~ A Board Location Table (B Side) ~

| DIODE | | D2503 | G - 9 | D3024 | B - 3 | D5309 | J - 3 | IC5103 | L - 3 | TRANSISTOR | | Q3201 | C - 2 | Q5300 | M - 4 | Q7003 | H - 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D0101 | B - 7 | D3001 | B - 7 | D3026 | B - 2 | D5400 | K - 4 | IC5104 | K - 6 | Q1000 | C - 6 | Q3202 | C - 3 | Q5301 | L - 5 | Q7009 | K - 6 |
| D0104 | C - 5 | D3003 | B - 7 | D3028 | C - 2 | D5401 | J - 4 | IC5200 | M - 3 | Q1001 | D - 6 | Q3204 | C - 3 | Q5302 | K - 7 | Q7011 | J - 6 |
| D0110 | G - 4 | D3005 | B - 7 | D3201 | F - 2 | D5404 | J - 3 | IC5201 | L - 4 | Q1004 | D - 10 | Q3300 | F - 3 | Q5303 | M - 4 | Q7012 | J - 5 |
| D0111 | G - 2 | D3007 | B - 6 | D5103 | L - 6 | D5405 | I - 3 | IC5300 | J - 3 | Q1005 | B - 2 | Q3301 | F - 3 | Q5304 | M - 5 | Q7013 | J - 6 |
| D0112 | C - 5 | D3008 | B - 6 | D5104 | J - 5 | D5809 | K - 8 | IC5301 | K - 4 | Q1006 | B - 3 | Q3302 | F - 3 | Q5305 | K - 3 | Q7014 | J - 6 |
| D0113 | C - 5 | D3009 | B - 6 | D5200 | K - 2 | D5811 | L - 8 | IC5302 | M - 4 | Q2000 | C - 9 | Q3500 | F - 3 | Q5306 | K - 4 | Q7015 | I - 5 |
| D1006 | B - 10 | D3011 | C - 4 | D5202 | L - 4 | D5812 | L - 8 | IC5400 | I - 3 | Q2002 | D - 9 | Q3501 | F - 3 | Q5400 | J - 4 | Q7016 | I - 5 |
| D2014 | C - 9 | D3013 | C - 4 | D5300 | L - 5 | D6200 | F - 7 | IC6200 | I - 9 | Q2003 | D - 9 | Q5101 | M - 5 | Q5401 | K - 4 | Q7017 | I - 6 |
| D2015 | D - 9 | D3015 | C - 4 | D5303 | N - 4 | IC | | IC6201 | I - 8 | Q2004 | E - 7 | Q5200 | M - 4 | Q5402 | J - 5 | Q7018 | I - 5 |
| D2016 | E - 8 | D3017 | B - 4 | D5304 | M - 4 | IC2000 | C - 8 | IC6202 | F - 6 | Q2005 | E - 7 | Q5201 | N - 3 | Q5403 | J - 4 | Q7019 | I - 5 |
| D2018 | B - 2 | D3018 | B - 3 | D5305 | L - 6 | IC2001 | D - 9 | IC6203 | E - 6 | Q2501 | G - 8 | Q5202 | K - 3 | Q5404 | J - 4 | | |
| D2019 | B - 2 | D3019 | B - 3 | D5306 | L - 5 | IC2500 | F - 8 | IC6205 | K - 5 | Q2502 | G - 9 | Q5203 | J - 2 | Q5813 | J - 8 | | |
| D2500 | G - 9 | D3021 | C - 4 | D5307 | L - 7 | IC3100 | E - 5 | IC6206 | G - 3 | Q2503 | G - 9 | Q5204 | L - 4 | Q5815 | L - 8 | | |
| D2502 | G - 9 | D3023 | B - 3 | D5308 | M - 4 | IC3200 | E - 3 | IC6207 | G - 4 | Q3200 | C - 3 | Q5205 | M - 3 | Q5816 | L - 8 | | |

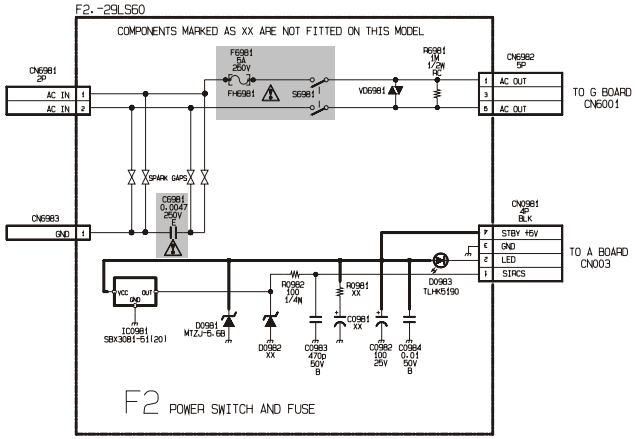
## ~ A Board Semiconductor Voltage Table ~

| Ref | (s) | (g) | (d) | Ref | (e) | (b) | (c) | Ref | (e) | (b) | (c) | Ref | (e) | (b) | (c) | Ref | (e) | (b) | (c) | Ref | (e) | (b) | (c) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q3500 | 2.7 | 3.3 | 3.9 | Q2002 | 0 | 0 | 4 | Q3204 | 5 | 4.4 | 3.4 | Q5205 | 1.9 | 1.2 | 0 | Q5813 | 0 | 7.9 | 0 | Q7015 | 11.6 | 10.9 | 8.8 |
| Q3501 | 2.7 | 3.3 | 4 | Q2003 | 0 | 0 | 4 | Q3300 | 0.7 | 1.3 | 5 | Q5300 | 0 | 0.4 | 2.2 | Q5814 | 0 | 0 | 0 | Q7016 | 6 | 6.6 | 10.9 |
| Q5301 | 0 | 5.1 | 51.2 | Q2004 | 3.3 | 3.9 | 8.3 | Q3301 | 1.9 | 1.2 | 0 | Q5301 | 5.1 | 0 | 51.2 | Q5815 | 0 | 0 | 5 | Q7017 | 2.7 | 2 | 0 |
| Q5404 | 0 | 0 | 0.5 | Q2005 | 3.3 | 3.9 | 8.3 | Q3302 | 1.9 | 1.2 | 0 | Q5302 | 8.9 | 5.7 | 0 | Q5816 | 5 | 5 | 0 | Q7018 | 11.6 | 10.9 | 8.6 |
| **Ref** | **(e)** | **(b)** | **(c)** | Q2501 | 0 | 0 | 15.2 | Q3500 | 3.3 | 2.7 | 3.9 | Q5304 | 0 | 0.4 | 5.6 | Q7003 | 5.6 | 6.2 | 8.8 | Q7019 | 6 | 6.6 | 10.9 |
| Q1001 | 3.2 | 3.9 | 8.3 | Q2502 | 0 | 0.7 | 0 | Q3501 | 3.3 | 2.7 | 4 | Q3400 | 0 | 0 | 0.1 | Q7009 | 3.2 | 7 | 0.1 | Q7020 | 8.9 | 8.9 | 0 |
| Q1004 | 1.9 | 1.3 | 0 | Q2503 | 0.6 | 0.6 | 0.5 | Q5101 | 0 | 0.4 | 6.4 | Q5401 | 0 | 0 | 7.9 | Q7011 | 2.5 | 1.9 | 0 | Q7021 | 2.7 | 2.7 | 8.9 |
| Q1005 | 0 | 0.5 | 5 | Q3200 | 1.9 | 2.5 | 4.4 | Q5201 | 2.8 | 3.4 | 7.9 | Q5402 | 0 | 0 | -11.3 | Q7012 | 11.6 | 10.9 | 8.7 | | | | |
| Q1006 | 5 | 4.7 | 1 | Q3201 | 1.9 | 2.5 | 4.4 | Q5202 | 0.2 | 0.8 | 11.7 | Q5403 | -13.5 | -11.2 | -8.3 | Q7013 | 6 | 6.6 | 10.9 | | | | |
| Q2000 | 4.2 | 4.8 | 8.3 | Q3202 | 5 | 4.4 | 3.4 | Q5203 | 0.2 | 0.8 | 11.7 | Q5404 | 0 | 0 | 0.5 | Q7014 | 2.5 | 1.8 | 0 | | | | |

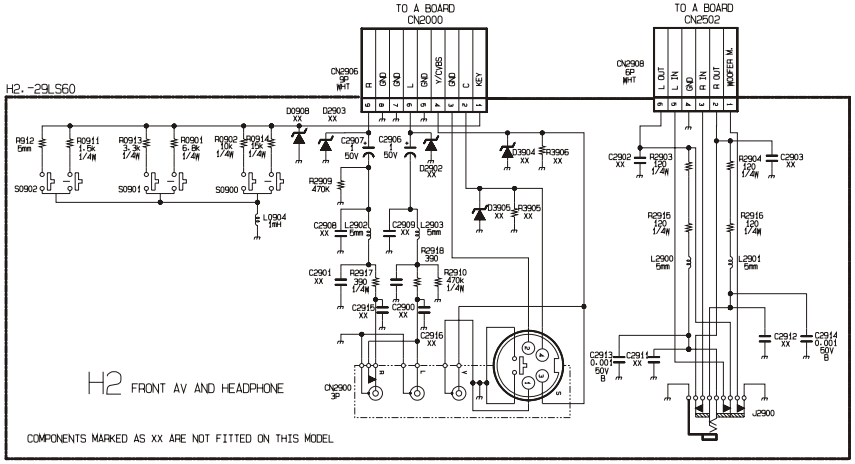
## ~ A Board IC Voltage Table ~

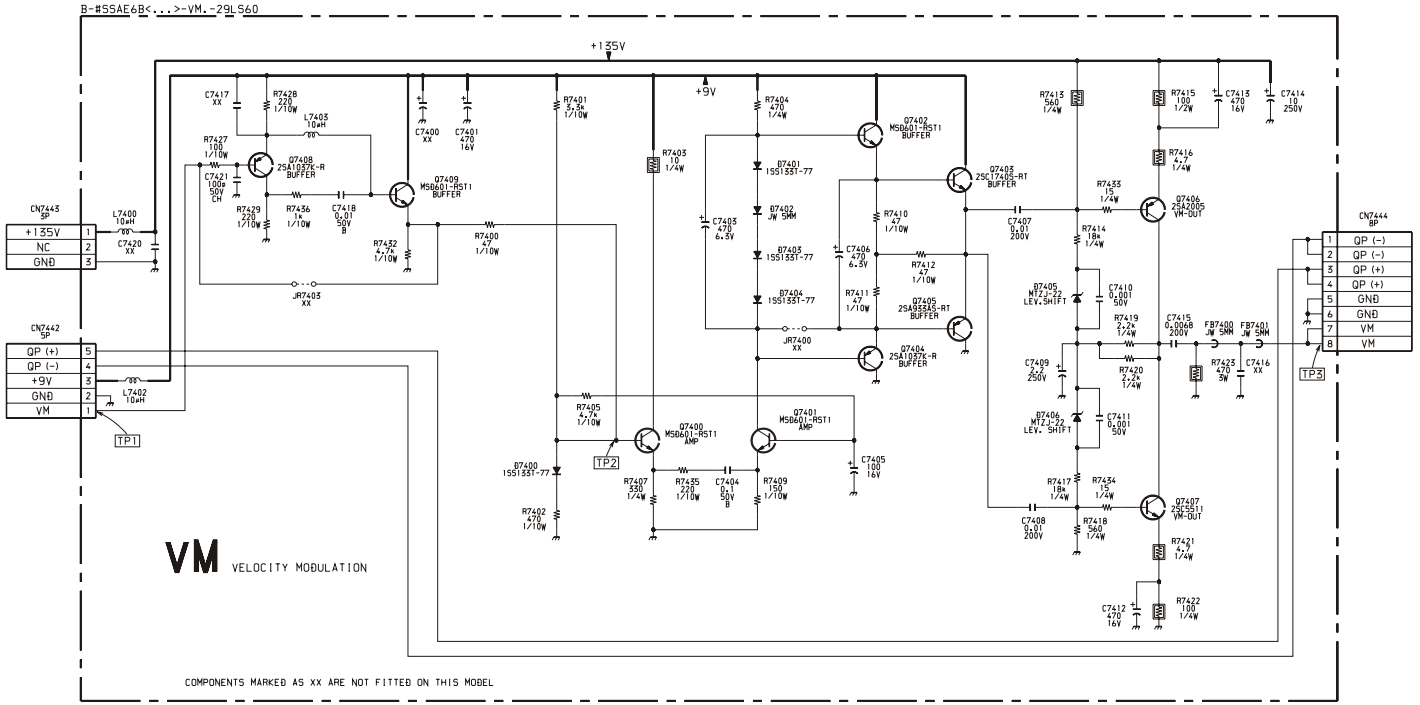
| IC Voltage Table | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ref No | Pin No | Voltage (V) | Ref No | Pin No | Voltage (V) | Ref No | Pin No | Voltage (V) | Ref No | Pin No | Voltage (V) | Ref No | Pin No | Voltage (V) |
| IC3100 | 1 | 1.3 | IC5103 | 6 | 1.8 | IC5201 | 5 | 9.3 | IC5400 | 6 | 13.7 | IC7002 | 32 | 8.9 |
| | 2 | 1.7 | | 7 | 2 | | 6 | 0.5 | | 7 | 1.4 | | 33 | 0 |
| | 3 | 2.6 | | 8 | 0 | | 7 | 12.1 | IC7002 | 1 | 3.6 | | 34 | 4.7 |
| | 4 | 0 | | 9 | 3.1 | | 8 | -14.1 | | 2 | 0 | | 35 | 4.7 |
| | 5 | 2.5 | | 10 | 3 | IC5300 | 1 | 6 | | 3 | 4.4 | | 36 | 4.7 |
| | 6 | 3.3 | | 11 | 5 | | 2 | 6 | | 4 | 4.8 | | 37 | 8.9 |
| | 7 | 0 | | 12 | 5 | | 3 | 6 | | 5 | 3.5 | | 38 | 0 |
| | 8 | 0 | | 13 | 5 | | 4 | 0 | | 6 | 3.4 | | 39 | 4.8 |
| | 9 | 1.1 | | 14 | 0 | | 5 | 6 | | 7 | 7.6 | | 40 | 4.8 |
| | 10 | 1.1 | | 15 | 0 | | 6 | 6 | | 8 | 0 | | 41 | 4.8 |
| | 11 | 0 | | 16 | 5 | | 7 | 6 | | 9 | 0 | | 42 | 0 |
| | 12 | 0 | IC5200 | 1 | 4.8 | | 8 | 12 | | 10 | 0.4 | | 43 | 0 |
| | 13 | 0 | | 2 | 4.9 | IC5301 | 1 | 1.7 | | 11 | 1.8 | | 44 | 0 |
| | 14 | 0 | | 3 | 4.8 | | 2 | 8.5 | | 12 | 0.4 | | 45 | 6.3 |
| | 15 | 0.5 | | 4 | 4.8 | | 3 | 6.5 | | 13 | 0.9 | | 46 | 8.9 |
| | 16 | 0.3 | | 5 | 5 | | 4 | 0 | | 14 | 5 | | 47 | 8.9 |
| | 17 | 0.3 | | 6 | 5 | | 5 | 6.5 | | 15 | 2.5 | | 48 | 6 |
| | 18 | 0.3 | | 7 | 5 | | 6 | 7.1 | | 16 | 0 | | 49 | 2.5 |
| | 19 | 3.3 | | 8 | 5 | | 7 | 0.4 | | 17 | 3 | | 50 | 4.1 |
| | 20 | 0 | | 9 | 4.9 | | 8 | 12 | | 18 | 2.7 | | 51 | 0 |
| | 21 | 3.3 | | 10 | 12.1 | IC5302 | 1 | 0 | | 19 | 3.9 | | 52 | 6 |
| | 22 | 3.3 | | 11 | 4.1 | | 2 | 5.8 | | 20 | 0 | | 53 | 5.8 |
| | 23 | 0 | | 12 | 5 | | 3 | 6.3 | | 21 | 6.1 | | 54 | 5.8 |
| | 24 | 3.2 | | 13 | 5 | | 4 | 0 | | 22 | 2.7 | | 55 | 0.4 |
| | 25 | 1.2 | | 14 | 1.9 | | 5 | 6.6 | | 23 | 8.8 | | 56 | 5.8 |
| | 26 | 3.2 | | 15 | 1.1 | | 6 | 6.5 | | 24 | 0 | | 57 | 5.8 |
| | 27 | 2.1 | | 16 | 0 | | 7 | 0.4 | | 25 | 4.3 | | 58 | 5.8 |
| | 28 | 0.3 | | 17 | 0 | | 8 | 12 | | 26 | 3.2 | | 59 | 0.3 |
| IC5103 | 1 | 3.3 | | 18 | 0 | IC5400 | 1 | 1.4 | | 27 | 5.2 | | 60 | 0 |
| | 2 | 3.3 | IC5201 | 1 | 9.3 | | 2 | 13.2 | | 28 | 0.3 | | 61 | 0 |
| | 3 | 1.9 | | 2 | 3.8 | | 3 | -12.5 | | 29 | 4.9 | | 62 | 2.9 |
| | 4 | 2.6 | | 3 | 3.8 | | 4 | -15.4 | | 30 | 3.4 | | 63 | 3.7 |
| | 5 | 2.5 | | 4 | -15.4 | | 5 | -0.4 | | 31 | 5.6 | | | |

~ F2 Board Schematic Diagram [ Power Switch & Fuse ] ~

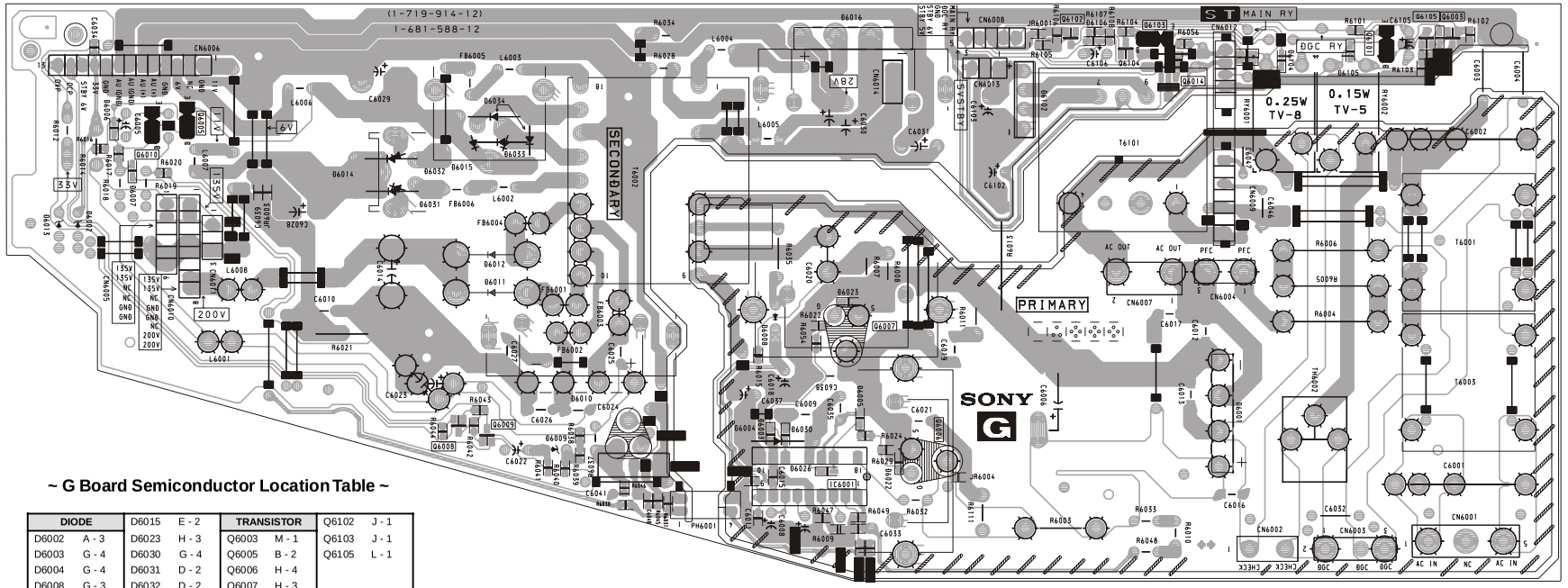



~ H2 Board Schematic Diagram [ Front AV & Headphone ] ~



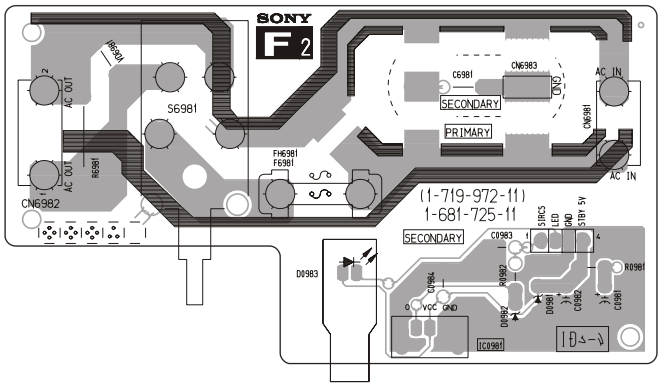

~ VM Board Schematic Diagram [ Velocity Modulation ] ~



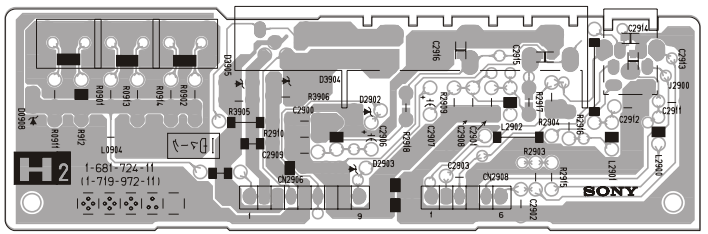

~ G Printed Wiring Board Conductor side ~

~ G Board Semiconductor Location Table ~

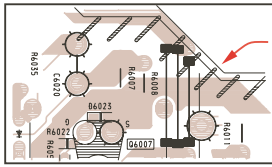
| DIODE | | D6015 | E - 2 | TRANSISTOR | | Q6102 | J - 1 |
|---|---|---|---|---|---|---|---|
| D6002 | A - 3 | D6023 | H - 3 | Q6003 | M - 1 | Q6103 | J - 1 |
| D6003 | G - 4 | D6030 | G - 4 | Q6005 | B - 2 | Q6105 | L - 1 |
| D6004 | G - 4 | D6031 | D - 2 | Q6006 | H - 4 | | |
| D6008 | G - 3 | D6032 | D - 2 | Q6007 | H - 3 | | |
| D6009 | E - 4 | D6033 | E - 2 | Q6008 | D - 4 | | |
| D6010 | E - 4 | D6034 | E - 2 | Q6009 | E - 4 | | |
| D6011 | E - 3 | IC | | Q6010 | B - 2 | | |
| D6012 | E - 3 | IC6001 | G - 5 | Q6014 | J - 2 | | |
| D6013 | A - 3 | | | Q6101 | L - 1 | | |



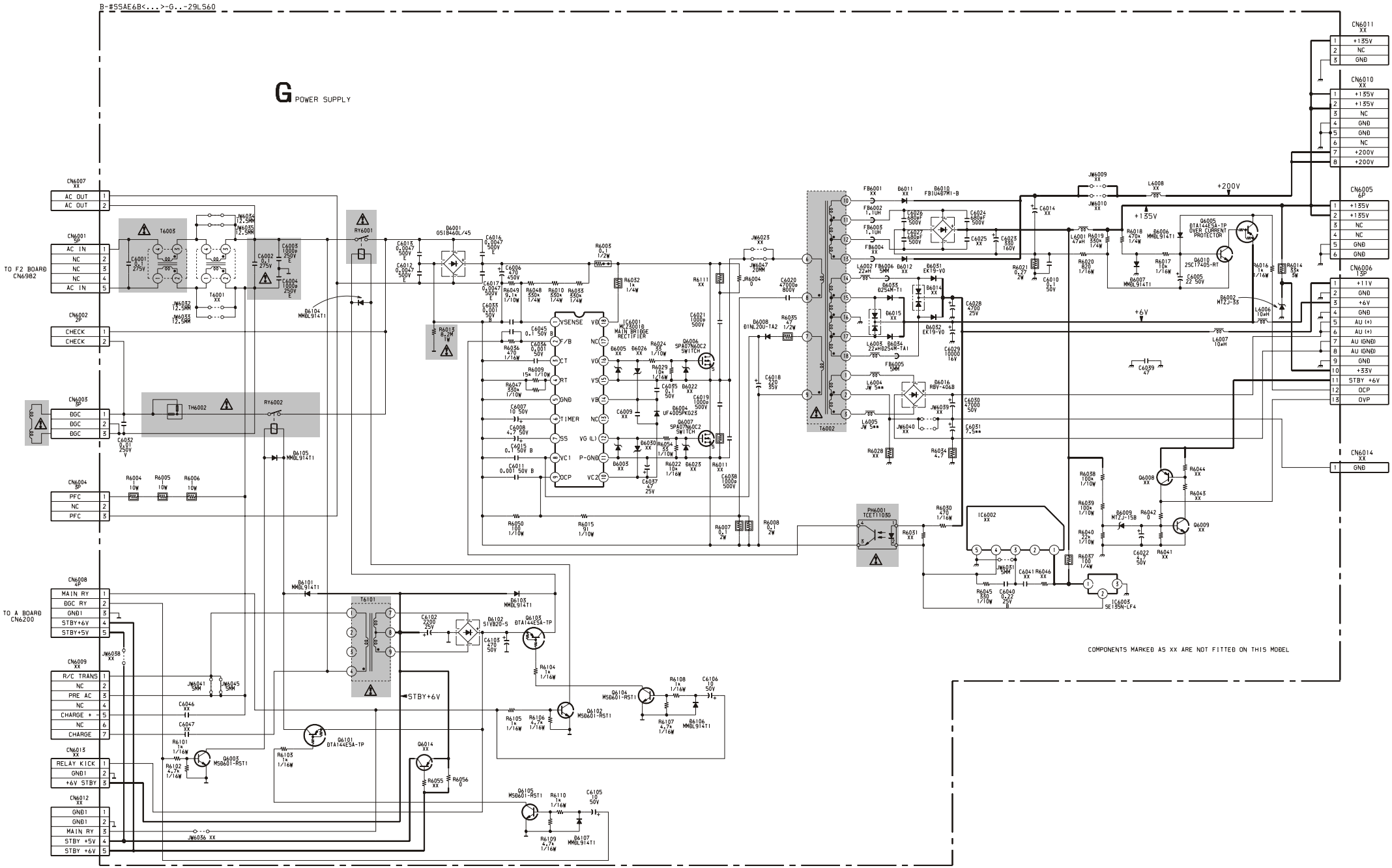

~ F2 Printed Wiring Board Conductor side ~

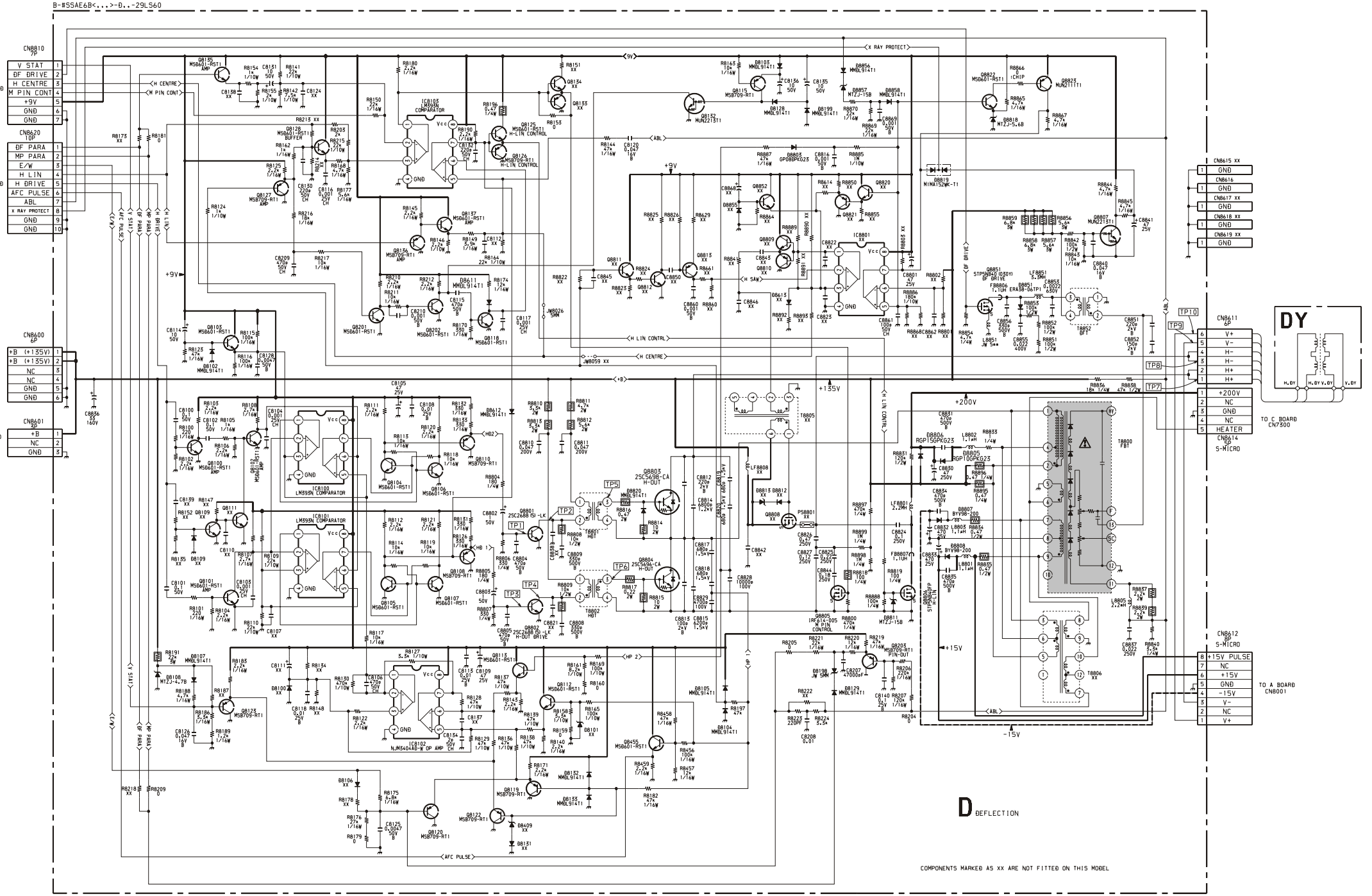



~ H2 Printed Wiring Board Conductor side ~

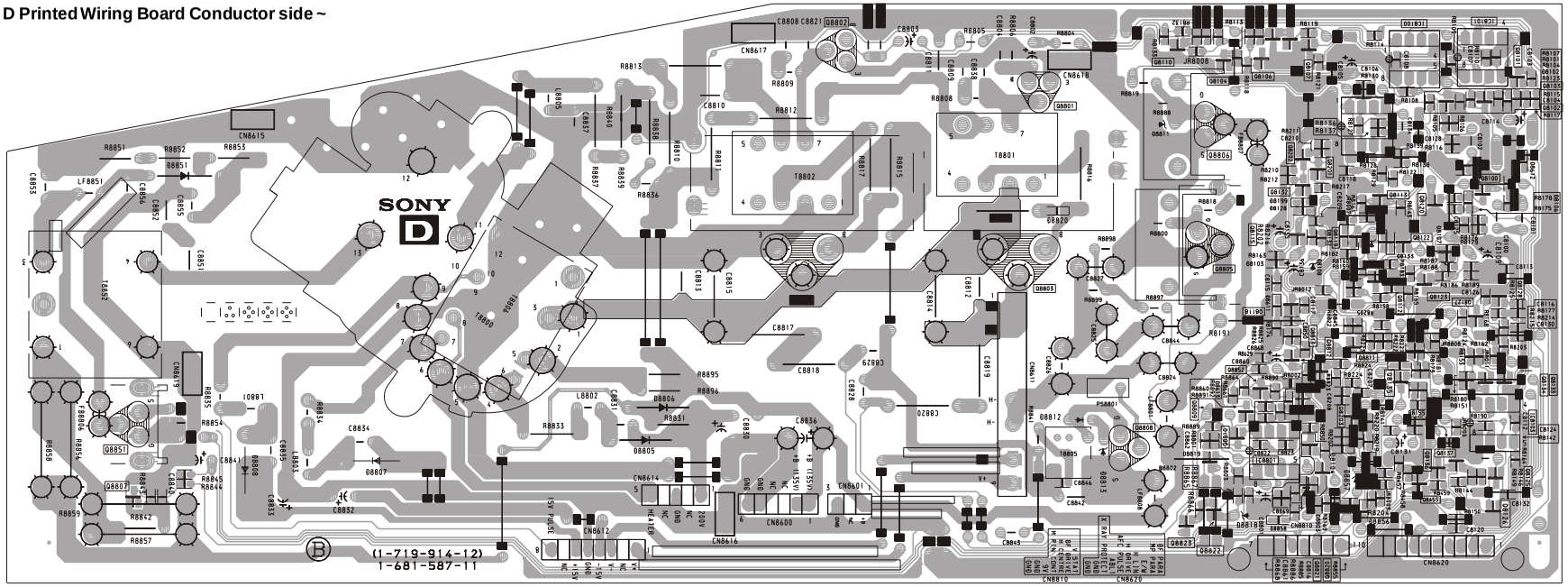


**Note :**
Portions of the circuit contained within the marked areas as shown have high voltages present. Use care to prevent electric shock during inspection or repair. An Isolation Transformer must be used during any Service work to avoid possible shock hazard due to live chassis. The chassis of this receiver is directly connected to the power line.

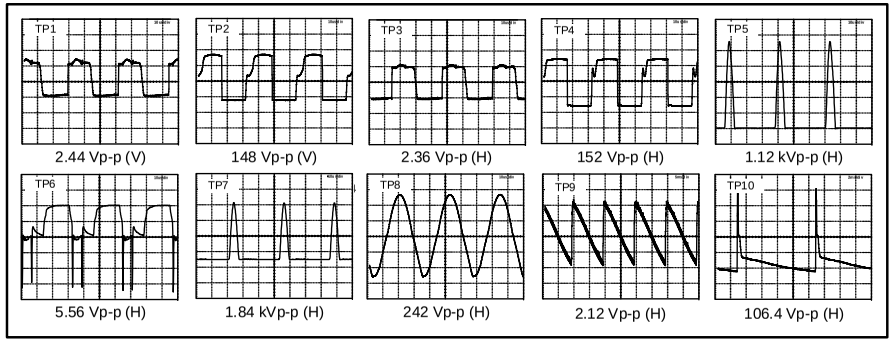

G POWER SUPPLY
TO F2 BOARD CN6982
TO A BOARD CN6200
TO B BOARD CN8600
TO A BOARD CN6202
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL


B-#SSAE6B<...>-D..-29LS60
CN8810 7P
V STAT 1
DF DRIVE 2
H CENTRE 3
M PIN CONT 4
+9V 5
GND 6
GND 7
TO A BOARD CN5002
CN8620 10P
DF PARA 1
MP PARA 2
E/W 3
H LIN 4
H DRIVE 5
AFC PULSE 6
ABL 7
X RAY PROTECT 8
GND 9
GND 10
TO A BOARD CN5801
CN8600 6P
+B (+135V) 1
+B (+135V) 2
NC 3
NC 4
GND 5
GND 6
TO G BOARD CN6005
CN8601 3P
+B 1
NC 2
GND 3
TO VM BOARD CN7443
DY
H.DY
H.DY V.DY
V.DY
CN8611 6P
V+
V-
H-
H-
H+
H+
+200V
NC
GND
NC
HEATER
CN8614 6P S-MICRO
TO C BOARD CN7300
CN8612 8P S-MICRO
+15V PULSE
NC
+15V
GND
-15V
V-
NC
V+
TO A BOARD CN8001
CN8615 xx
GND
CN8616
GND
CN8617 xx
GND
CN8618 xx
GND
CN8619 xx
GND
+9V
+135V
+200V
+15V
-15V
+B
GND
H CENTRE
M PIN CONT
H LIN CONTRL
H SAW
DF DRIVE
ABL
X RAY PROTECT
AFC PULSE
V STAT
DF PARA
MP PARA
H LIN
HP
HP 1
HP 2
HD 1
HD2
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
IC8101 LM393N COMPARATOR
IC8102 NJM4040AD-W OP AMP
IC8103 LM393N COMPARATOR
IC8801
T8800 FBT
T8801 H-LIN
T8802 HDT
T8803 H-OUT
T8804 H-OUT
T8805
T8806
T8851 DFT
T8852 DFT
PSB01 STR80145P H-LIN
PSB801
IRF614-005 M PIN CONTROL
Q8801 2SC2688 (S) -LK
Q8802 2SC2688 (S) -LK H-OUT DRIVE
Q8803 2SC5496-CA H-OUT
Q8804 2SC5496-CA H-OUT
Q8805 STP5NB40 (030Y) DF DRIVE
D8806 RGP15GPKG23
D8805 RGP10GPKG23
D8808 BY398-200
D8807 BY398-100
D8809 GP08GPKG23
D8819 MIMA152WK-T1
D8820 MMDL914T1
D8821 MMDL914T1
D8822 MSD601-RST1
D8823 MMDL914T1
D8824 MMDL914T1
D8825 MMDL914T1
D8826 MMDL914T1
D8827 MMDL914T1
D8828 MMDL914T1
D8829 MMDL914T1
D8830 42 250V
D8831 470V 500V B
D8832 MTZJ-15B
D8833 1.1kH
D8834 470p 500V B
D8835 0.47 1/2W
D8836 0.47 1/2W
D8837 0.47 1/2W
D8838 0.47 1/2W
D8839 0.47 1/2W
D8840 0.47 1/2W
D8841 47 25V
D8842 100p 1/2W
D8843 10k 1/16W
D8844 4.7k 1/16W
D8845 4.7k 1/16W
D8846 4.7k 1/16W
D8847 4.7k 1/16W
D8848 4.7k 1/16W
D8849 0.001 50V B
D8850 MMDL914T1
D8851 EHA58-06TP1
D8852 100k 1/2W
D8853 0.0022 630V
D8854 0.47 1/2W
D8855 100k 1/2W
D8856 5.6k 5W
D8857 5.6k 5W
D8858 5.6k 5W
D8859 5.6k 5W
D8860 0.001 50V B
D8861 100p 50V CH
D8862 100k 1/16W
D8863 100k 1/16W
D8864 100k 1/16W
D8865 4.7k 1/16W
D8866 0 :CHIP
D8867 4.7k 1/16W
D8868 4.7k 1/16W
D8869 22k 1/16W
D8870 22k 1/16W
D8871 4.7k 1/16W
D8872 4.7k 1/16W
D8873 4.7k 1/16W
D8874 4.7k 1/16W
D8875 4.7k 1/16W
D8876 4.7k 1/16W
D8877 4.7k 1/16W
D8878 4.7k 1/16W
D8879 4.7k 1/16W
D8880 4.7k 1/16W
D8881 4.7k 1/16W
D8882 4.7k 1/16W
D8883 4.7k 1/16W
D8884 4.7k 1/16W
D8885 4.7k 1/16W
D8886 180k 1/10W
D8887 4.7k 1/16W
D8888 100k 1/4W
D8889 4.7k 1/16W
D8890 4.7k 1/16W
D8891 4.7k 1/16W
D8892 4.7k 1/16W
D8893 4.7k 1/16W
D8894 4.7k 1/16W
D8895 4.7k 1/16W
D8896 0.47 1/4W
D8897 470k 1/4W
D8898 1M 1/4W
D8899 1M 1/4W
D8800 470k 1/4W
D8801 100k 1/4W
D8802 100k 1/4W
D8803 100k 1/4W
D8804 100k 1/4W
D8805 100k 1/4W
D8806 100k 1/4W
D8807 100k 1/4W
D8808 100k 1/4W
D8809 100k 1/4W
D8810 5.6k 2W
D8811 5.6k 2W
D8812 5.6k 2W
D8813 5.6k 2W
D8814 680p 1.2kV
D8815 10 2W
D8816 0.47 2W
D8817 0.22 2W
D8818 MTZJ-5.6B
D8819 MIMA152WK-T1
D8820 MMDL914T1
D8821 MMDL914T1
D8822 MSD601-RST1
D8823 MUN2211T1
D8824 MMDL914T1
D8825 MMDL914T1
D8826 MMDL914T1
D8827 MMDL914T1
D8828 10000p 100V
D8829 4700p 100V
D8830 42 250V
D8831 470V 500V B
D8832 MTZJ-15B
D8833 1.1kH
D8834 470p 500V B
D8835 0.47 1/2W
D8836 0.47 1/2W
D8837 0.47 1/2W
D8838 0.47 1/2W
D8839 0.47 1/2W
D8840 0.47 1/2W
D8841 47 25V
D8842 100p 1/2W
D8843 10k 1/16W
D8844 4.7k 1/16W
D8845 4.7k 1/16W
D8846 4.7k 1/16W
D8847 4.7k 1/16W
D8848 4.7k 1/16W
D8849 0.001 50V B
D8850 MMDL914T1
D8851 EHA58-06TP1
D8852 100k 1/2W
D8853 0.0022 630V
D8854 0.47 1/2W
D8855 100k 1/2W
D8856 5.6k 5W
D8857 5.6k 5W
D8858 5.6k 5W
D8859 5.6k 5W
D8860 0.001 50V B
D8861 100p 50V CH
D8862 100k 1/16W
D8863 100k 1/16W
D8864 100k 1/16W
D8865 4.7k 1/16W
D8866 0 :CHIP
D8867 4.7k 1/16W
D8868 4.7k 1/16W
D8869 22k 1/16W
D8870 22k 1/16W
D8871 4.7k 1/16W
D8872 4.7k 1/16W
D8873 4.7k 1/16W
D8874 4.7k 1/16W
D8875 4.7k 1/16W
D8876 4.7k 1/16W
D8877 4.7k 1/16W
D8878 4.7k 1/16W
D8879 4.7k 1/16W
D8880 4.7k 1/16W
D8881 4.7k 1/16W
D8882 4.7k 1/16W
D8883 4.7k 1/16W
D8884 4.7k 1/16W
D8885 4.7k 1/16W
D8886 180k 1/10W
D8887 4.7k 1/16W
D8888 100k 1/4W
D8889 4.7k 1/16W
D8890 4.7k 1/16W
D8891 4.7k 1/16W
D8892 4.7k 1/16W
D8893 4.7k 1/16W
D8894 4.7k 1/16W
D8895 4.7k 1/16W
D8896 0.47 1/4W
D8897 470k 1/4W
D8898 1M 1/4W
D8899 1M 1/4W
D8800 470k 1/4W
D8801 100k 1/4W
D8802 100k 1/4W
D8803 100k 1/4W
D8804 100k 1/4W
D8805 100k 1/4W
D8806 100k 1/4W
D8807 100k 1/4W
D8808 100k 1/4W
D8809 100k 1/4W
D8810 5.6k 2W
D8811 5.6k 2W
D8812 5.6k 2W
D8813 5.6k 2W
D8814 680p 1.2kV
D8815 10 2W
D8816 0.47 2W
D8817 0.22 2W
D8818 MTZJ-5.6B
D8819 MIMA152WK-T1
D8820 MMDL914T1
D8821 MMDL914T1
D8822 MSD601-RST1
D8823 MUN2211T1
D8824 MMDL914T1
D8825 MMDL914T1
D8826 MMDL914T1
D8827 MMDL914T1
D8828 MMDL914T1
D8829 MMDL914T1

## ~ D Printed Wiring Board Conductor side ~




## ~ D Board Waveforms ~

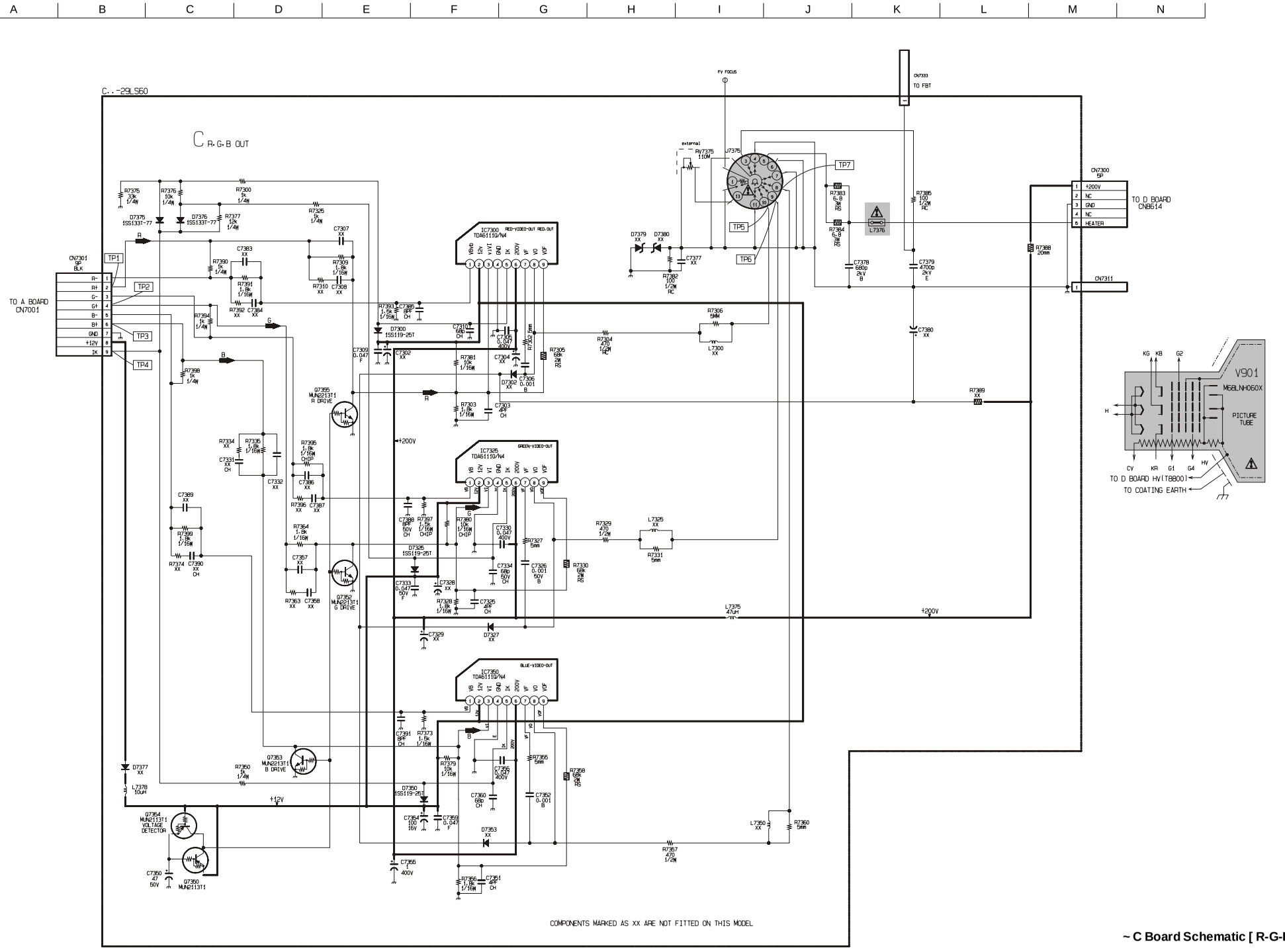



## ~ D Board IC Voltage Table ~

| IC Voltage Table | | |
|---|---|---|
| Ref No | Pin No | Voltage (V) |
| IC8100 | 1 | 0.3 |
| | 2 | 4.3 |
| | 3 | 4.1 |
| | 5 | 4.1 |
| | 6 | 3.0 |
| | 7 | 0.4 |
| IC8101 | 1 | 0.3 |
| | 2 | 4.3 |
| | 3 | 4.4 |
| | 5 | 4.4 |
| | 6 | 3.0 |
| | 7 | 0.4 |
| IC8102 | 1 | 4.1 |
| | 2 | 0.4 |
| | 3 | 0.4 |
| | 5 | 0.4 |
| | 6 | 0.4 |
| | 7 | 0.4 |
| IC8103 | 1 | 2.5 |
| | 2 | 2.1 |
| | 3 | 1.7 |
| | 5 | 1.6 |
| | 6 | 1.0 |
| | 7 | 1.1 |

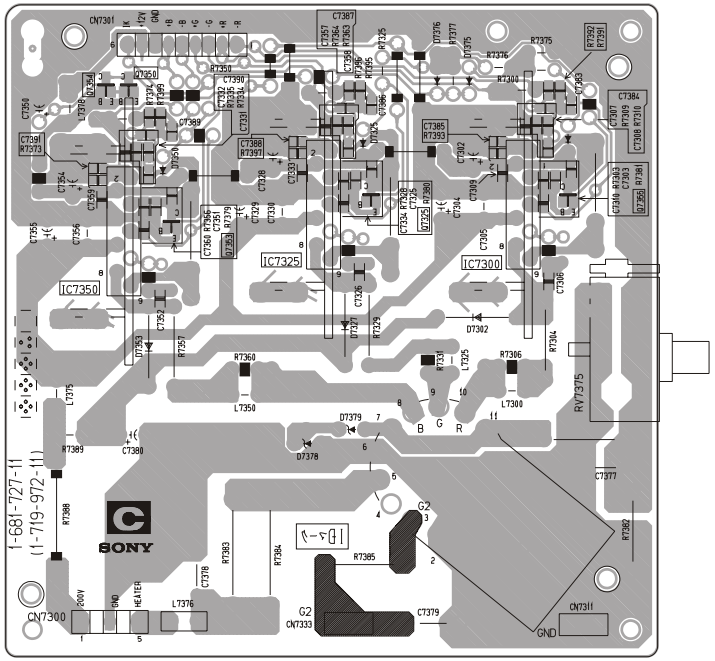
## ~ D Board Semiconductor Voltage Table ~

| Ref | (e)(s) | (b)(g) | (c)(d) | Ref | (e)(s) | (b)(g) | (c)(d) | Ref | (e)(s) | (b)(g) | (c)(d) | Ref | (e)(s) | (b)(g) | (c)(d) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q8100 | 0 | 0.6 | 3.6 | Q8110 | 2.4 | 3.1 | 0 | Q8128 | 3.4 | 1.5 | 8.9 | Q8801 | 0 | 0.4 | 64.7 |
| Q8101 | 0 | 0.6 | 4.3 | Q8113 | 0.3 | 0.2 | 8.9 | Q8132 | 0 | 0 | 3.4 | Q8802 | 0 | 0.4 | 73.2 |
| Q8102 | 0 | 0.3 | 4.3 | Q8115 | 8.6 | 8.9 | 0 | Q8135 | 2.6 | 3.2 | 8.9 | Q8807 | 0 | 6.3 | 0 |
| Q8103 | 4.0 | 0 | 8.9 | Q8118 | 0 | 0 | 5.0 | Q8136 | 2.5 | 1.8 | 0 | Q8818 | 0 | 0 | 5.0 |
| Q8104 | 0 | 0.4 | 3.1 | Q8119 | 0.7 | 1.4 | 0 | Q8137 | 1.8 | 2.5 | 8.9 | Q8822 | 5.5 | 4.9 | 0 |
| Q8105 | 0 | 0.4 | 3.2 | Q8120 | 0.7 | 2.3 | 0 | Q8201 | 0 | 0.6 | 3.9 | Q8823 | 8.9 | 8.5 | 0 |
| Q8106 | 0 | 0.3 | 4.3 | Q8122 | 0.5 | 1.4 | 0 | Q8202 | 0 | 0.8 | 3.4 | Q8805 | 0 | 2.5 | 33 |
| Q8107 | 0 | 0.3 | 4.2 | Q8123 | 0.5 | 1.4 | 0 | Q8203 | 1.4 | 0.9 | 0 | Q8806 | 0 | 1.2 | 135 |
| Q8108 | 2.4 | 3.2 | 0 | Q8127 | 1.4 | 1.5 | 0 | Q8455 | 1.1 | 1.7 | 8.9 | Q8851 | 0 | 5.4 | 81.5 |

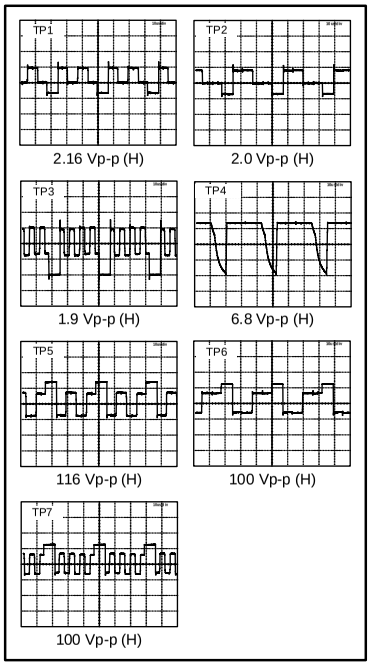



~ C Board Schematic [ R-G-B Out ] ~

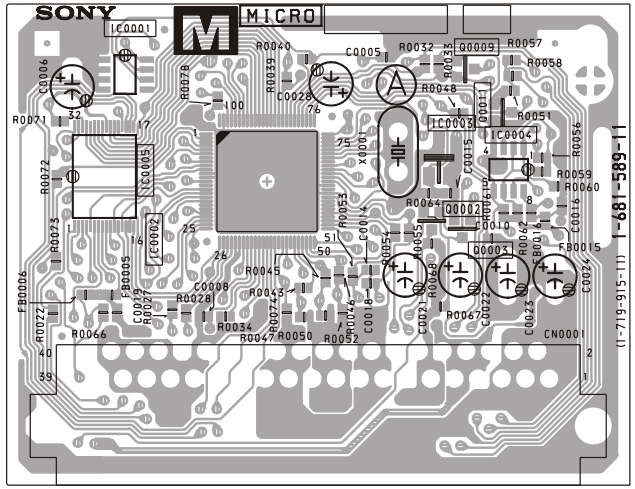
~ C Printed Wiring Board Conductor side ~



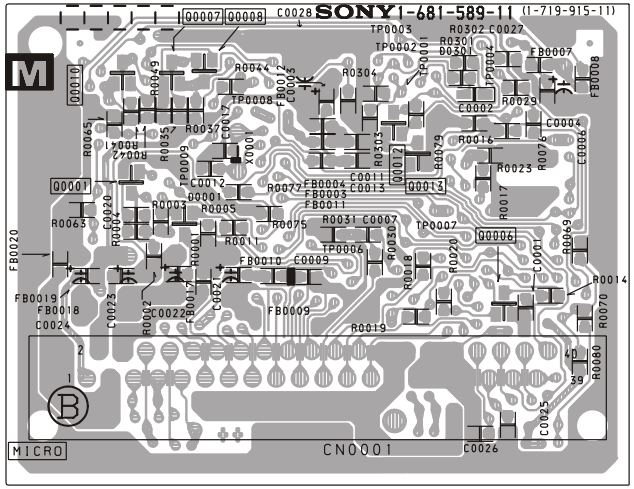

~ C Board Waveforms ~




~ M Printed Wiring Board (A) side ~




~ M Printed Wiring Board (B) side ~

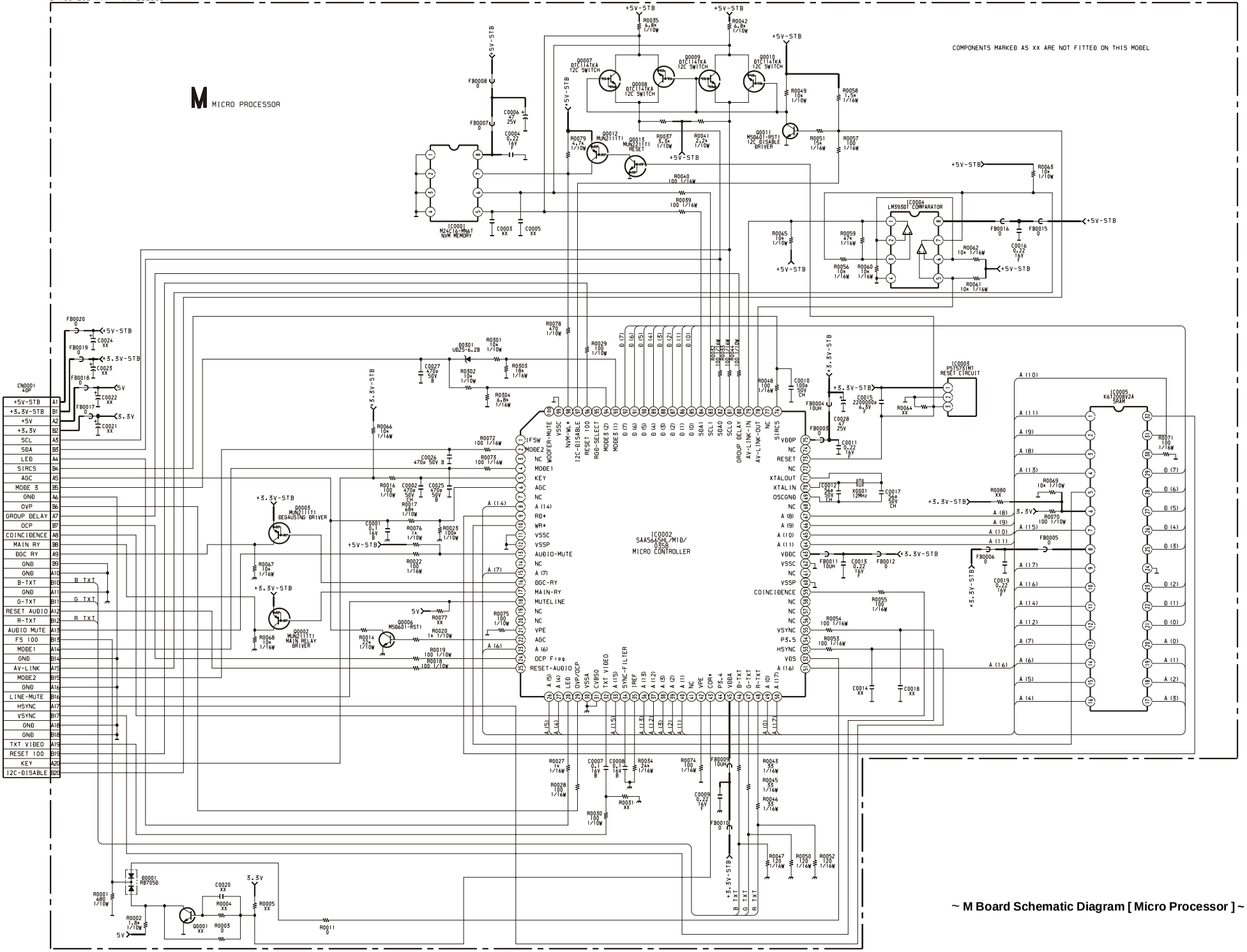



~ C Board Semiconductor Voltage Table ~

| Ref | (e) | (b) | (c) |
|---|---|---|---|
| Q7350 | 12 | 11.98 | 0 |
| Q7352 | 0 | 0 | 3.8 |
| Q7353 | 0 | 0 | 3.8 |
| Q7354 | 11.98 | 12 | 0 |
| Q7355 | 0 | 0 | 3.8 |

~ C Board IC Voltage Table ~

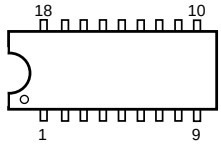
| IC Voltage Table | | |
|---|---|---|
| Ref No | Pin No | Voltage (V) |
| IC7300 | 1 | 3.9 |
| | 3 | 3.8 |
| | 5 | 7.5 |
| | 6 | 200 |
| | 7 | 140 |
| | 8 | 153 |
| | 9 | 140 |
| IC7325 | 1 | 3.9 |
| | 3 | 3.8 |
| | 5 | 7.7 |
| | 6 | 200 |
| | 7 | 140 |
| | 8 | 153 |
| | 9 | 140 |
| IC7350 | 1 | 3.9 |
| | 3 | 3.8 |
| | 5 | 7.5 |
| | 6 | 200 |
| | 7 | 139 |
| | 8 | 148 |
| | 9 | 138 |




~ M Board Schematic Diagram [ Micro Processor ] ~

## 5-4. SEMICONDUCTORS

CXAB070AP
MCZ3001D




LM318P
LM358N
LM393DT
LM393N
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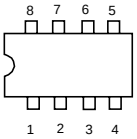


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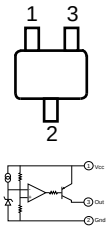


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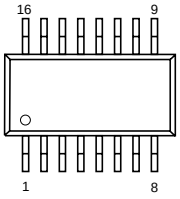
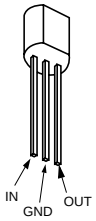



( TOP VIEW )

LM78L05ACZ

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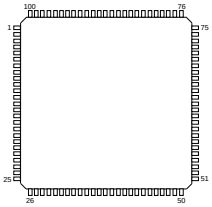

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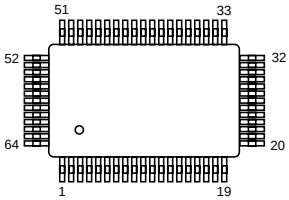
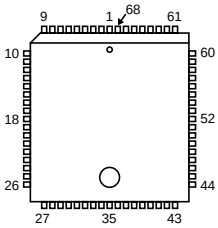


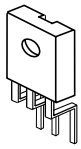

(TOP VIEW)

MSP3411G-QA-B10




( TOP VIEW )

SBX3081-51(30)



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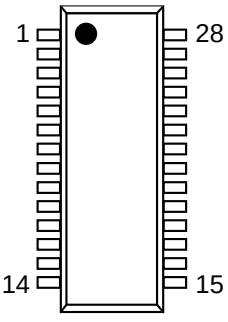


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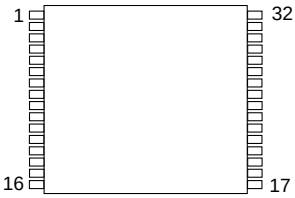
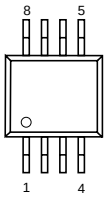
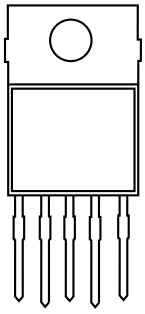



NJM3404AD-W
UPC4558G2

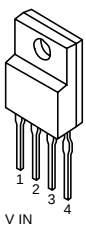



( TOP VIEW )

LA6500-FA

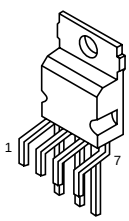


PQ30RV11

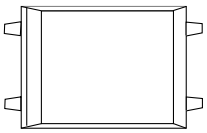



1 : V IN
2 : V OUT
3 : GND
4 : ON/OFF CONTROL

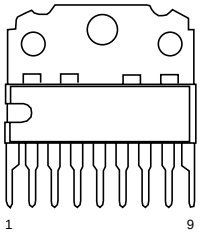
STV9379



TCET1103G



TDA6111Q/N4

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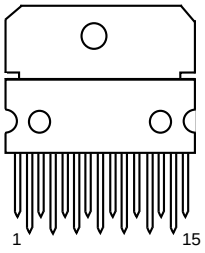


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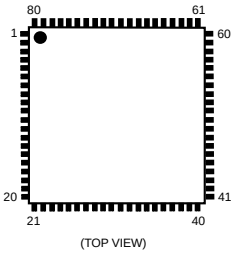

(TOP VIEW)

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IRF620
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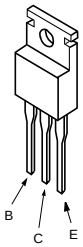
2SA2005
2SC5511

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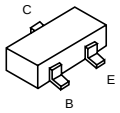
DTC144TKA-T146
2SA1162-G

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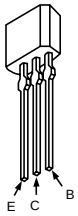
2SC2785-HFE

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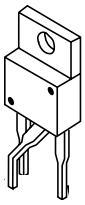
STP5NB40FP
STP5NB40(030Y)
2SC5698-CA
2S5696-SONY-CA



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M1MA152WA-T1
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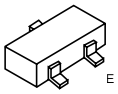
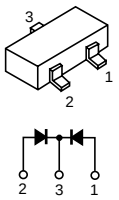
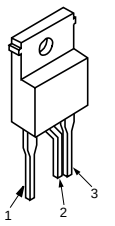
UN213
2SK2036(TE85L)




RB705D

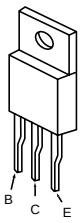



SE135N-LF4



1 V OUT SENSE
2 COLLECTOR
3 GND

2SA1837(LBS2S0N)

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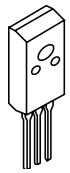

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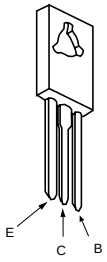
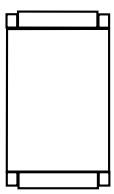



BAS216



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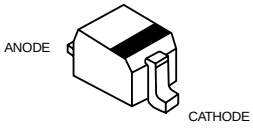
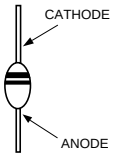



BYV98-200-RAS 15/12

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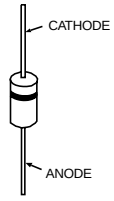
EL1Z
GP08D
UF4005PKG23

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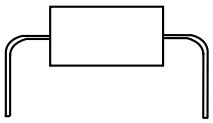

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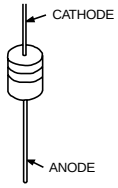
MTZJ-33B
MTZJ-3.6A
MTZJ-4.7C
MTZJ-T-77-22
RD15ES-B2
RD39ES-B2
RD5.6ESB2
1SS119-25
1SS133T-77

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RBV-406B
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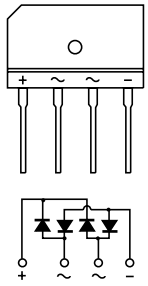
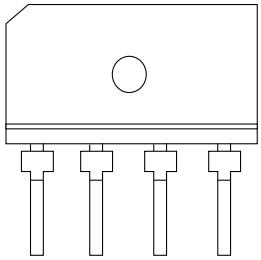
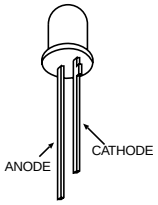



GS1B460/45

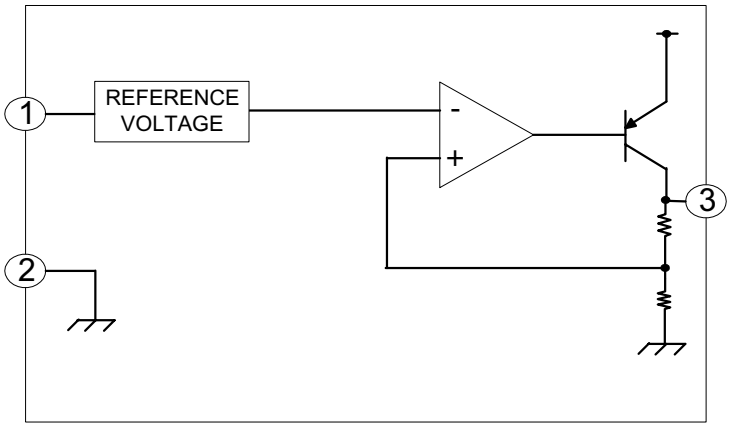


TLHK5190

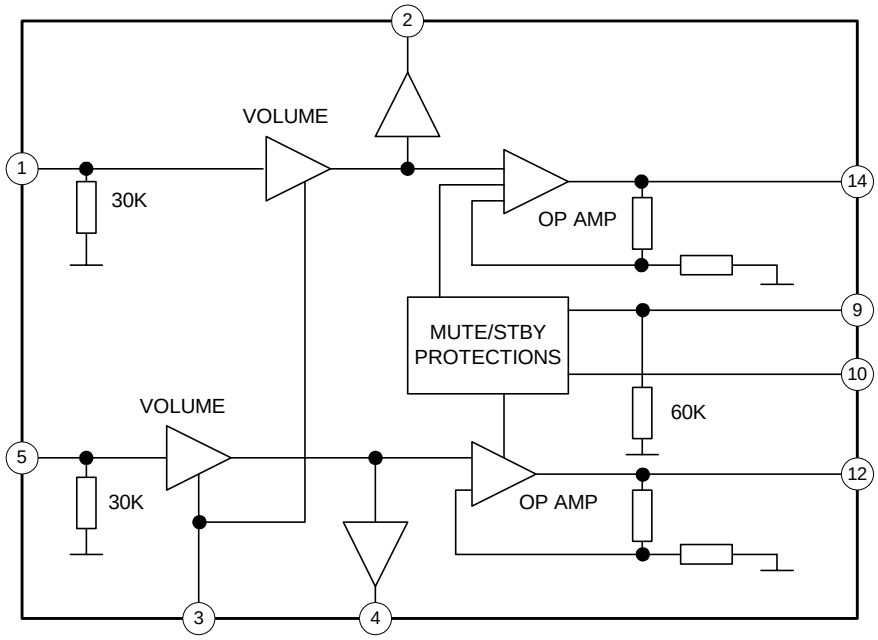


## 5-5 IC BLOCK DIAGRAMS

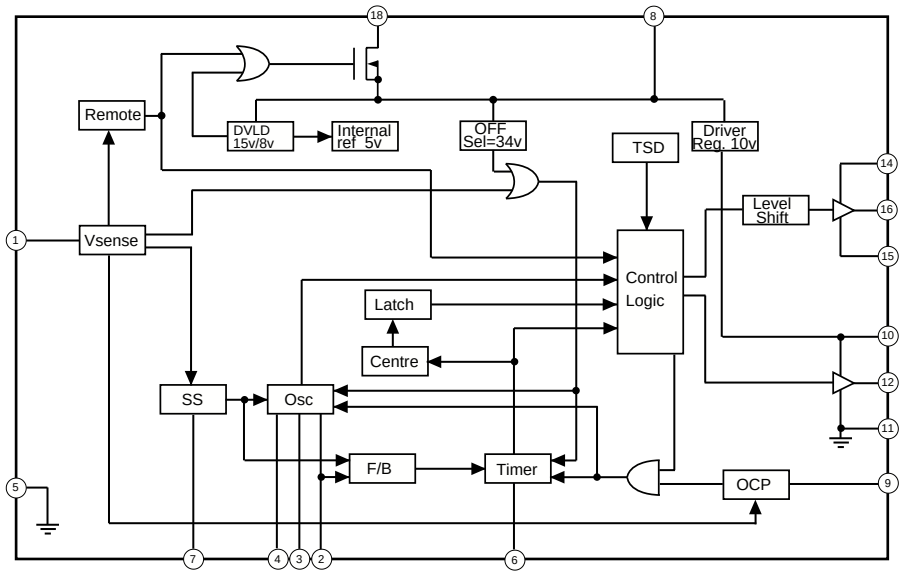
**A BOARD IC6202/IC6207/IC6205 BA033T/BA12T**



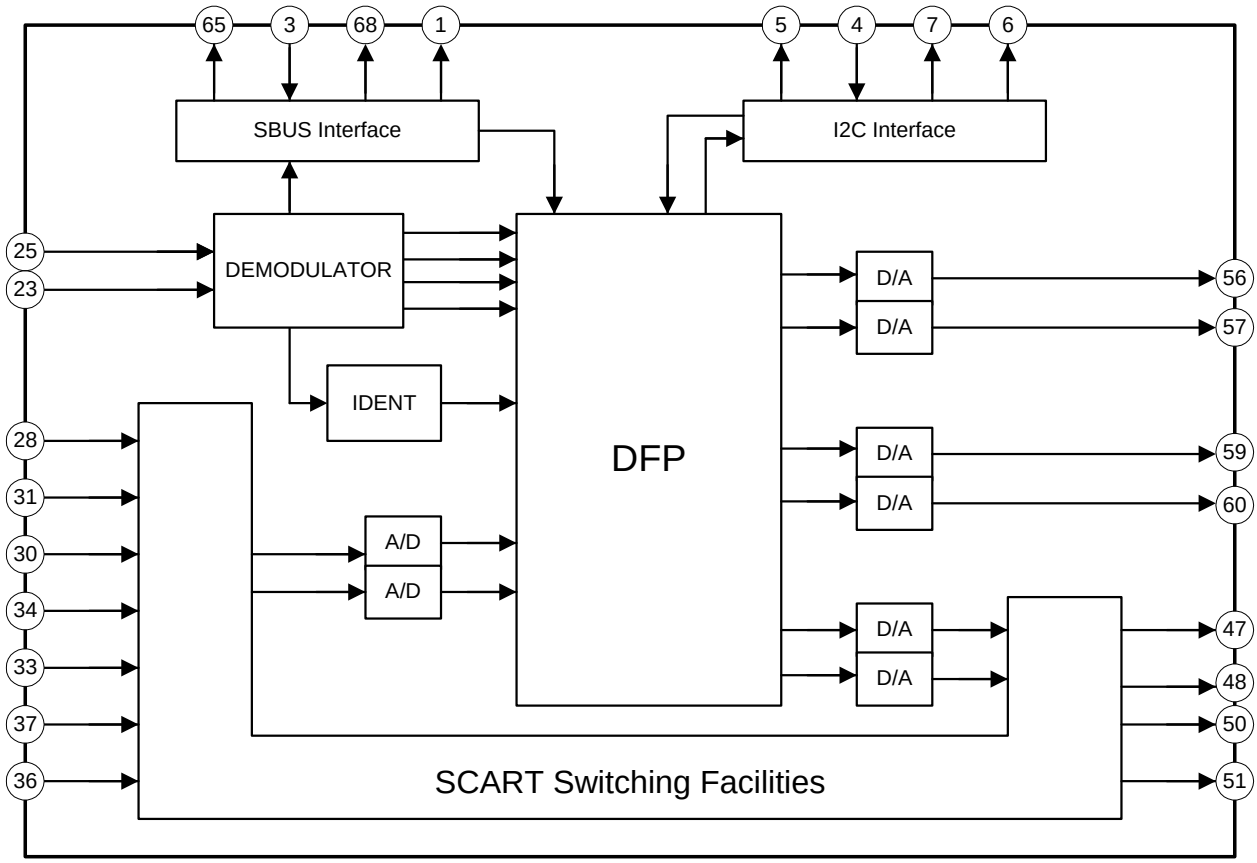

**A BOARD IC2500 TDA7497**



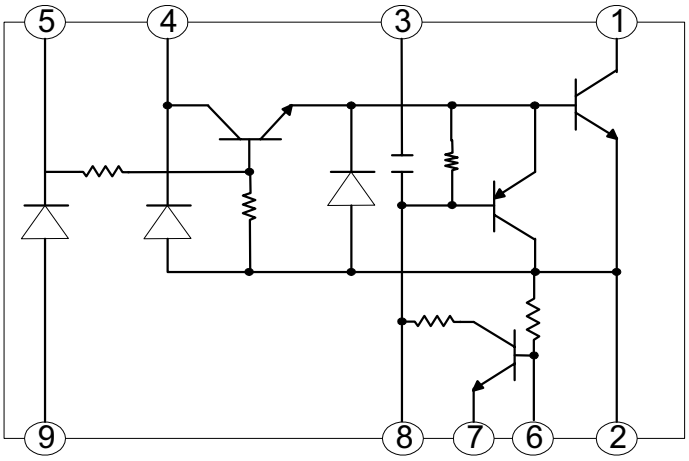

**G BOARD IC6001 MCZ3001D**



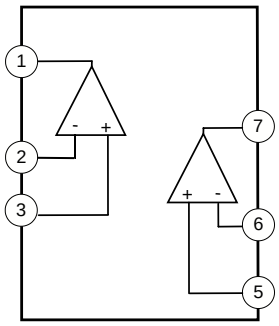
**A BOARD IC2000 MSP3411G**



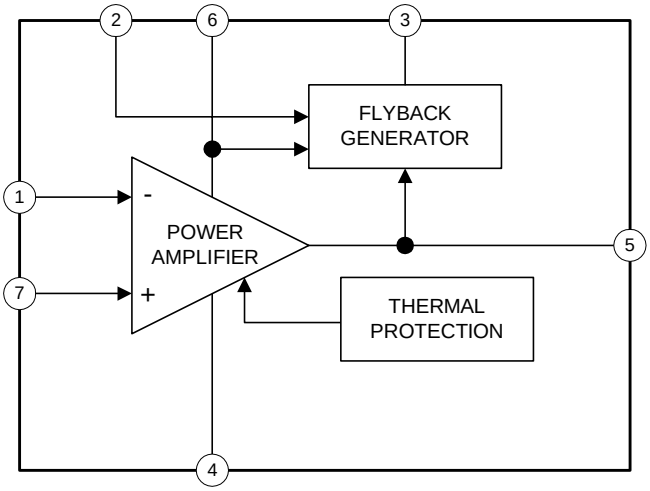

**G BOARD IC6003 SE135N-LF4**



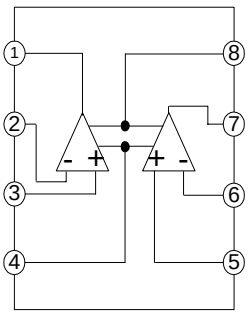

**A BOARD IC5301/IC5302 LM393TD**




**A BOARD IC5400 STV9379**




**A BOARD IC5300 LM358N**



# SECTION 6
# EXPLODED VIEWS

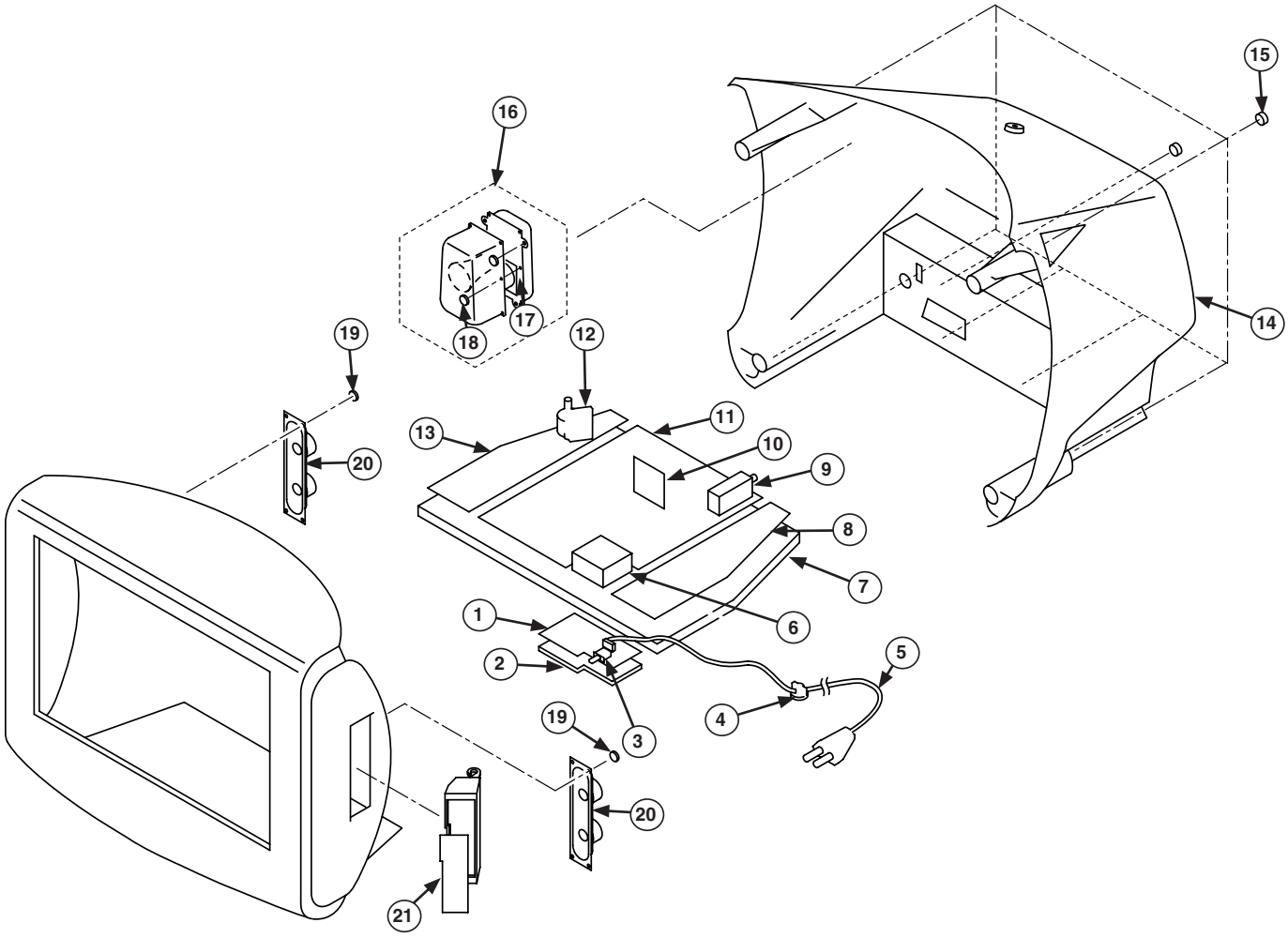
**Note :** Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

**NOTE :**

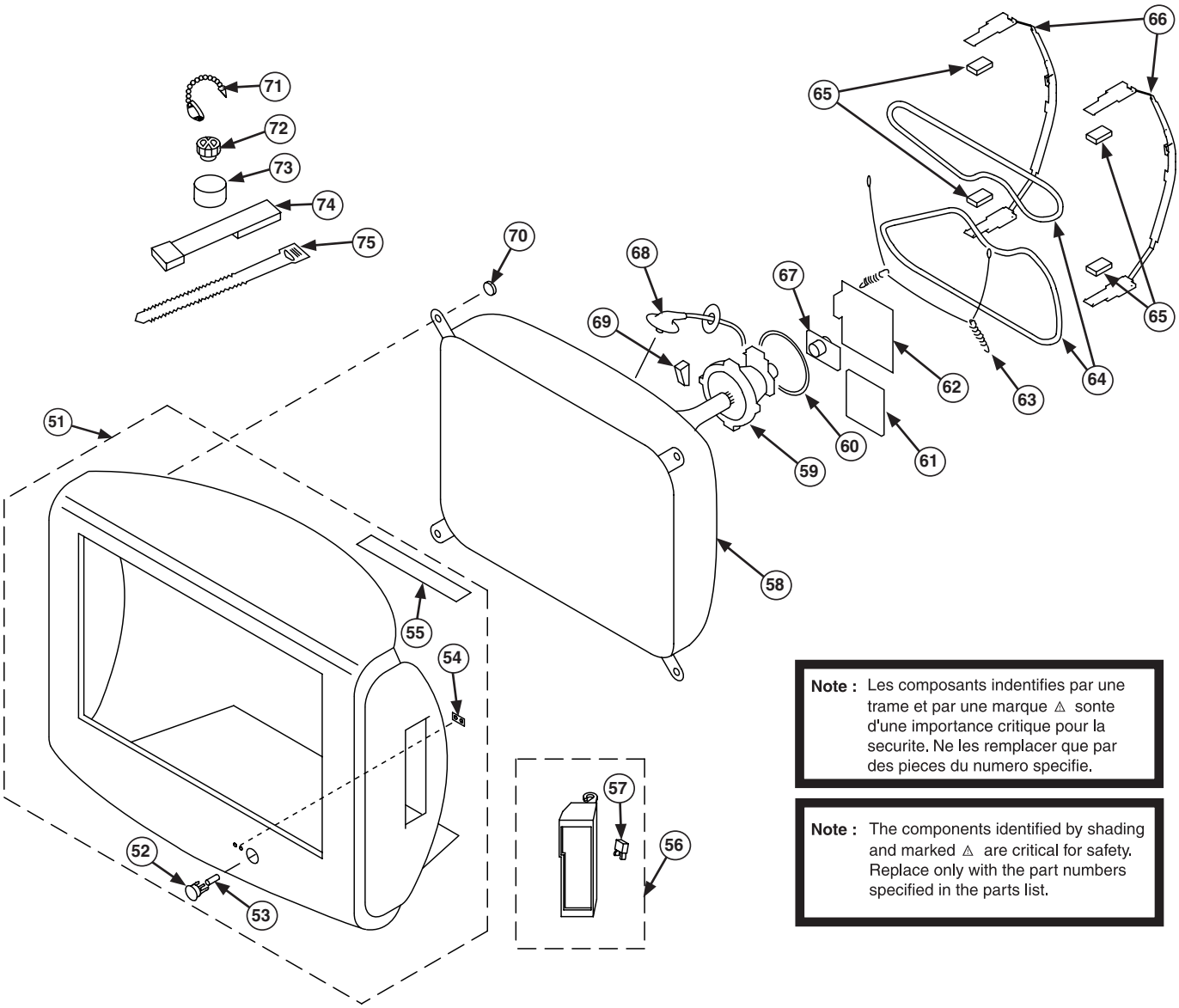
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## 6-1. CHASSIS




| REF.NO. | | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 1 | | *A-1624-102-A | F2 BOARD, COMPLETE | |
| 2 | | *4-206-055-01 | BRACKET, F2 | |
| 3 | ⚠ | 1-571-433-21 | SWITCH, PUSH (AC POWER) | |
| 4 | | *4-202-531-01 | AC CORD LOCK (SC) | |
| 5 | ⚠ | 1-765-286-11 | CORD, POWER | |
| 6 | | 1-424-855-11 | COIL, CHOKE | |
| 7 | | *4-206-106-01 | BRACKET, MAIN | |
| 8 | | *A-1637-024-A | G BOARD, COMPLETE | |
| 9 | | 8-598-535-11 | FRONTEND (BTF-EF411) (KV-29LS60B) | |
| | | 8-598-533-01 | FRONTEND (BTF-EC411) (KV-29LS60E/29LS60K) | |
| 10 | | *A-1634-062-A | M BOARD, COMPLETE | |
| 11 | | *A-1632-954-A | A BOARD, COMPLETE (KV-29LS60B) | |
| | | *A-1632-955-A | A BOARD, COMPLETE (KV-29LS60E/29LS60K) | |
| 12 | ⚠ | 1-453-340-31 | TRANSFORMER ASSY, FLYBACK (NX-4522//Z2B4) | |
| 13 | | *A-1640-432-A | D BOARD, COMPLETE | |
| 14 | | 4-206-051-01 | REAR COVER | |
| 15 | | 7-685-663-79 | SCREW +BVTP 4x16 TYPE 2 IT-3 | |
| 16 | | *A-1678-205-A | WOOFER COMPLETE ASSY | 17,18 |
| 17 | | 1-529-989-11 | SPEAKER (8CM) | |
| 18 | | 7-685-663-71 | SCREW +BVTP 4x16 TYPE 2 IT-3 | |
| 19 | | 7-685-663-71 | SCREW +BVTP 4x16 TYPE 2 IT-3 | |
| 20 | | 1-529-408-11 | SPEAKER (4.2x24CM) | |
| 21 | | *A-1647-043-A | H2 BOARD, COMPLETE | |

## 6-2. PICTURE TUBE




**Note :** Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

| REF.NO. | | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 51 | | X-4200-710-1 | BEZNET ASSY | 52-55 |
| 52 | | 4-205-948-01 | POWER BUTTON | |
| 53 | | 4-204-426-01 | SPRING | |
| 54 | | 4-205-375-01 | GUIDE, LIGHT | |
| 55 | | 4-204-666-01 | SHEET, BLOTTING | |
| 56 | | X-4200-712-1 | DOOR ASSY | 57 |
| 57 | | 4-047-464-01 | CATCHER, PUSH | |
| 58 | ⚠ | 8-735-053-05 | PICTURE TUBE (M68LNH060X) | |
| 59 | | 8-451-504-31 | DEFLECTION YOKE (Y29RSC-S) | |
| 60 | | 1-452-896-11 | COIL, NA ROTATION (RT200) | |
| 61 | | *A-1644-119-A | VM BOARD, COMPLETE | |
| 62 | | *A-1638-158-A | C BOARD, COMPLETE | |
| 63 | | 4-369-318-21 | SPRING, TENSION | |

| REF.NO. | | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 64 | ⚠ | 1-424-887-11 | COIL, DEGAUSSING | |
| 65 | | 4-203-390-11 | CUSHION, DGC | |
| 66 | | *4-204-768-01 | HOLDER, DGC (29″) | |
| 67 | | 8-453-011-41 | NECK ASSY, (NA299-C) | |
| 68 | ⚠ | 1-251-946-11 | CAP ASSY, HIGH-VOLTAGE | |
| 69 | | 3-704-495-01 | SPACER, DY | |
| 70 | | 4-046-765-12 | SCREW, TAPPING 7+ CROWN WASHER | |
| 71 | | 4-308-870-00 | CLIP, LEAD WIRE | |
| 72 | | 1-452-094-00 | MAGNET, ROTATABLE DISK; 15MM | |
| 73 | | 1-452-032-00 | MAGNET, DISK; 10MM | |
| 74 | | X-4387-214-1 | PERMALLOY ASSY, CORRECTION | |
| 75 | | 3-701-007-00 | BAND, BINDING | |

# SECTION 7
# ELECTRICAL PARTS LIST

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**Note :** Refer to the designated variant parts list when seeking a part indicated by an asterisk (*)
Parts indicated (XX) on the Schematic Diagram are not used in this model and therefore do not appear in the Parts List.

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.



| REF.NO. | | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|---|
| ***A-1624-102-A F2 Board, Complete** | | | | | | |
| | | 4-203-258-01 | HOLDER, LED | | | |
| | | *4-374-846-01 | COVER, CAPACITOR, CAP TYPE | | | |
| | | | < CAPACITOR > | | | |
| C0982 | | 1-104-665-11 | ELECT | 100UF | 20.00% | 25V |
| C0983 | | 1-102-114-00 | CERAMIC | 470PF | 10.00% | 50V |
| C0984 | | 1-102-129-00 | CERAMIC | 0.01UF | 10.00% | 50V |
| C6981 | ⚠ | 1-113-924-11 | CERAMIC | 0.0047UF | 20.00% | 250V |
| | | | < CONNECTOR > | | | |
| CN0981 | | *1-564-507-11 | PLUG, CONNECTOR 4P | | | |
| CN6981 | | *1-580-844-11 | PIN, CONNECTOR (POWER) | | | |
| CN6982 | | *1-695-292-11 | PIN, CONNECTOR (POWER) | | | |
| CN6983 | | 1-695-915-11 | TAB (CONTACT) | | | |
| | | | < DIODE > | | | |
| D0981 | | 8-719-109-89 | DIODE RD5.6ESB2 | | | |
| D0983 | | 8-719-082-12 | DIODE TLHK5190 | | | |
| | | | < FUSE > | | | |
| F6981 | ⚠ | 1-576-232-11 | FUSE (H.B.C.) 5A/250V | | | |
| | | *1-533-725-11 | HOLDER, FUSE (F6981) | | | |
| | | | < IC > | | | |
| IC0981 | | 8-742-180-30 | HYB IC SBX3081-51(30) | | | |
| | | | < RESISTOR > | | | |
| R0982 | | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R6981 | | 1-202-719-00 | SOLID | 1M | 10% | 1/2W |
| | | | < SWITCH > | | | |
| S6981 | ⚠ | 1-571-433-21 | SWITCH, PUSH (AC POWER) | | | |
| | | | < VARISTOR > | | | |
| VD6981 | | 1-803-830-11 | VARISTOR (ERZV14D621) | | | |
| ***A-1632-954-A A Board, Complete (KV-29LS60B)**<br>***A-1632-955-A A Board, Complete (KV-29LS60E/ KV-29LS60K)** | | | | | | |
| **A Board Common Parts** | | | | | | |
| | | 4-382-854-01 | SCREW (M3X8), P, SW (+) | | | |
| | | | < CAPACITOR > | | | |
| C1001 | | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C1002 | | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C1004 | | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C1006 | | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C1008 | | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C1009 | | 1-162-925-11 | CERAMIC CHIP | 68PF | 5.00% | 50V |
| C1010 | | 1-162-925-11 | CERAMIC CHIP | 68PF | 5.00% | 50V |
| C1014 | | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C1015 | | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C1018 | | 1-115-340-11 | CERAMIC CHIP | 0.22UF | 10.00% | 25V |
| C1020 | | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C1021 | | 1-162-968-11 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C1022 | | 1-216-295-91 | SHORT | 0 | | |
| C2000 | | 1-162-968-11 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C2001 | | 1-162-968-11 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C2006 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C2007 | | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2008 | | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C2009 | | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2010 | | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C2011 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C2013 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C2014 | | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C2015 | | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2016 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C2018 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C2019 | | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C2021 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C2024 | | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C2026 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C2029 | | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C2038 | | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C2039 | | 1-162-906-91 | CERAMIC CHIP | 1.5PF | 0.25PF | 50V |
| C2040 | | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C2041 | | 1-162-906-91 | CERAMIC CHIP | 1.5PF | 0.25PF | 50V |
| C2042 | | 1-163-249-11 | CERAMIC CHIP | 82PF | 5.00% | 50V |
| C2043 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C2044 | | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2046 | | 1-162-923-11 | CERAMIC CHIP | 47PF | 5.00% | 50V |
| C2047 | | 1-162-927-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C2048 | | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C2049 | | 1-162-925-11 | CERAMIC CHIP | 68PF | 5.00% | 50V |
| C2050 | | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C2051 | | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2052 | | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2053 | | 1-164-227-11 | CERAMIC CHIP | 0.022UF | 10.00% | 25V |
| C2054 | | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C2055 | | 1-162-968-11 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C2057 | | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2058 | | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2059 | | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2060 | | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C2061 | | 1-162-968-11 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| C2062 | 1-164-346-11 | CERAMIC CHIP 1UF | 16V |
| C2063 | 1-164-346-11 | CERAMIC CHIP 1UF | 16V |
| C2064 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C2065 | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V |
| C2066 | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V |
| C2069 | 1-127-715-91 | CERAMIC CHIP 0.22UF | 10.00% 16V |
| C2073 | 1-126-960-91 | ELECT 1UF | 20.00% 50V |
| C2074 | 1-126-960-91 | ELECT 1UF | 20.00% 50V |
| C2075 | 1-126-960-91 | ELECT 1UF | 20.00% 50V |
| C2077 | 1-126-960-91 | ELECT 1UF | 20.00% 50V |
| C2078 | 1-126-963-11 | ELECT 4.7UF | 20.00% 50V |
| C2079 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C2080 | 1-162-927-11 | CERAMIC CHIP 100PF | 5.00% 50V |
| C2081 | 1-115-414-11 | CERAMIC CHIP 820PF | 5.00% 25V |
| C2082 | 1-163-249-11 | CERAMIC CHIP 82PF | 5.00% 50V |
| C2083 | 1-162-964-11 | CERAMIC CHIP 0.001UF | 10.00% 50V |
| C2090 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C2091 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C2092 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C2093 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C2096 | 1-162-970-11 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C2500 | 1-126-952-11 | ELECT 1000UF | 20.00% 35V |
| C2502 | 1-104-666-11 | ELECT 220UF | 20.00% 25V |
| C2504 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C2505 | 1-115-339-11 | CERAMIC CHIP 0.1UF | 10.00% 50V |
| C2506 | 1-126-972-11 | ELECT 1000UF | 20.00% 50V |
| C2507 | 1-164-230-11 | CERAMIC CHIP 220PF | 5.00% 50V |
| C2508 | 1-164-230-11 | CERAMIC CHIP 220PF | 5.00% 50V |
| C2509 | 1-164-230-11 | CERAMIC CHIP 220PF | 5.00% 50V |
| C2510 | 1-164-227-11 | CERAMIC CHIP 0.022UF | 10.00% 25V |
| C2511 | 1-163-021-91 | CERAMIC CHIP 0.01UF | 10.00% 50V |
| C2512 | 1-163-021-91 | CERAMIC CHIP 0.01UF | 10.00% 50V |
| C2513 | 1-126-952-11 | ELECT 1000UF | 20.00% 35V |
| C2515 | 1-164-227-11 | CERAMIC CHIP 0.022UF | 10.00% 25V |
| C2516 | 1-126-953-11 | ELECT 2200UF | 20.00% 35V |
| C2517 | 1-126-960-11 | ELECT 1UF | 20.00% 50V |
| C2518 | 1-126-960-11 | ELECT 1UF | 20.00% 50V |
| C2519 | 1-126-959-11 | ELECT 0.47UF | 20.00% 50V |
| C2521 | 1-164-346-11 | CERAMIC CHIP 1UF | 16V |
| C2522 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C2523 | 1-115-339-11 | CERAMIC CHIP 0.1UF | 10.00% 50V |
| C3200 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C3202 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C3203 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C3206 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C3208 | 1-163-235-91 | CERAMIC CHIP 22PF | 5.00% 50V |
| C3209 | 1-163-235-91 | CERAMIC CHIP 22PF | 5.00% 50V |
| C3210 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C3211 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C3213 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| C3214 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3215 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3216 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3217 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3218 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3219 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3220 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3221 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3222 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3223 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3224 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3225 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3226 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3227 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3228 | 1-164-489-91 | CERAMIC CHIP 0.22UF | 10.00% 16V |
| C3229 | 1-164-489-91 | CERAMIC CHIP 0.22UF | 10.00% 16V |
| C3230 | 1-164-489-11 | CERAMIC CHIP 0.22UF | 10.00% 16V |
| C3231 | 1-164-489-11 | CERAMIC CHIP 0.22UF | 10.00% 16V |
| C3232 | 1-164-489-11 | CERAMIC CHIP 0.22UF | 10.00% 16V |
| C3233 | 1-164-489-11 | CERAMIC CHIP 0.22UF | 10.00% 16V |
| C3234 | 1-164-489-11 | CERAMIC CHIP 0.22UF | 10.00% 16V |
| C3235 | 1-165-176-91 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C3236 | 1-165-176-91 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C3237 | 1-165-176-91 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C3238 | 1-165-176-91 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C3239 | 1-165-176-91 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C3240 | 1-165-176-91 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C3241 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C3242 | 1-162-970-11 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C3243 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3250 | 1-163-021-91 | CERAMIC CHIP 0.01UF | 10.00% 50V |
| C3300 | 1-163-251-91 | CERAMIC CHIP 100PF | 5.00% 50V |
| C3309 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C3310 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C3406 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5110 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C5111 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5112 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5114 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5115 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5116 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5117 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5118 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5119 | 1-107-823-11 | CERAMIC CHIP 0.47UF | 10.00% 16V |
| C5120 | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C5121 | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C5122 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5123 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5124 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5125 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| C5200 | 1-136-177-00 | FILM 1UF | 5.00% 50V |
| C5201 | 1-163-989-11 | CERAMIC CHIP 0.033UF | 10.00% 25V |
| C5202 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C5203 | 1-136-177-00 | FILM 1UF | 5.00% 50V |
| C5204 | 1-115-339-11 | CERAMIC CHIP 0.1UF | 10.00% 50V |
| C5205 | 1-163-989-11 | CERAMIC CHIP 0.033UF | 10.00% 25V |
| C5206 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C5207 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C5209 | 1-163-127-00 | CERAMIC CHIP 270PF | 5.00% 50V |
| C5210 | 1-164-336-11 | CERAMIC CHIP 0.33UF | 25V |
| C5211 | 1-136-165-00 | FILM 0.1UF | 5.00% 50V |
| C5212 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C5213 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C5214 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5215 | 1-162-923-11 | CERAMIC CHIP 47PF | 5.00% 50V |
| C5216 | 1-162-927-11 | CERAMIC CHIP 100PF | 5.00% 50V |
| C5217 | 1-136-165-00 | FILM 0.1UF | 5.00% 50V |
| C5218 | 1-162-923-11 | CERAMIC CHIP 47PF | 5.00% 50V |
| C5219 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5300 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C5301 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C5302 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C5303 | 1-136-153-00 | FILM 0.01UF | 5.00% 50V |
| C5304 | 1-164-182-11 | CERAMIC CHIP 0.0033UF | 10.00% 50V |
| C5305 | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C5306 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5307 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5309 | 1-162-927-11 | CERAMIC CHIP 100PF | 5.00% 50V |
| C5310 | 1-136-165-00 | FILM 0.1UF | 5.00% 50V |
| C5311 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5312 | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C5313 | 1-107-714-11 | ELECT 10UF | 20.00% 50V |
| C5314 | 1-162-970-11 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C5316 | 1-164-230-11 | CERAMIC CHIP 220PF | 5.00% 50V |
| C5318 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5319 | 1-136-347-11 | FILM 0.0047UF | 5.00% 630V |
| C5320 | 1-129-716-00 | FILM 0.015UF | 5.00% 630V |
| C5321 | 1-136-347-11 | FILM 0.0047UF | 5.00% 630V |
| C5322 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5323 | 1-136-159-00 | FILM 0.033UF | 5.00% 50V |
| C5400 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5401 | 1-107-714-11 | ELECT 10UF | 20.00% 50V |
| C5403 | 1-128-527-11 | ELECT 330UF | 20.00% 25V |
| C5404 | 1-102-228-00 | CERAMIC 470PF | 10.00% 500V |
| C5405 | 1-163-021-91 | CERAMIC CHIP 0.01UF | 10.00% 50V |
| C5406 | 1-129-702-00 | MYLAR 0.001UF | 10.00% 400V |
| C5407 | 1-128-527-11 | ELECT 330UF | 20.00% 25V |
| C5409 | 1-126-968-11 | ELECT 100UF | 20.00% 50V |
| C5410 | 1-163-021-91 | CERAMIC CHIP 0.01UF | 10.00% 50V |
| C5411 | 1-137-401-11 | MYLAR 0.22UF | 10.00% 100V |
| C5412 | 1-106-220-00 | MYLAR 0.1UF | 10.00% 100V |
| C5413 | 1-130-785-11 | MYLAR 0.47UF | 10.00% 100V |
| C5801 | 1-126-963-11 | ELECT 4.7UF | 20.00% 50V |
| C5850 | 1-126-963-11 | ELECT 4.7UF | 20.00% 50V |
| C5851 | 1-107-826-11 | CERAMIC CHIP 0.1UF | 10.00% 16V |
| C5853 | 1-162-970-11 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C5854 | 1-107-826-11 | CERAMIC CHIP 0.1UF | 10.00% 16V |
| C5858 | 1-107-826-11 | CERAMIC CHIP 0.1UF | 10.00% 16V |
| C5859 | 1-126-960-11 | ELECT 1UF | 20.00% 50V |
| C5860 | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C5868 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C5872 | 1-164-346-11 | CERAMIC CHIP 1UF | 16V |
| C5873 | 1-163-251-11 | CERAMIC CHIP 100PF | 5.00% 50V |
| C5888 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5889 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C5890 | 1-164-227-11 | CERAMIC CHIP 0.022UF | 10.00% 25V |
| C5891 | 1-137-581-11 | FILM 0.1UF | 5.00% 100V |
| C5892 | 1-107-826-11 | CERAMIC CHIP 0.1UF | 10.00% 16V |
| C5893 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C5894 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C5895 | 1-164-156-11 | CERAMIC CHIP 0.1UF | 25V |
| C5896 | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C5897 | 1-162-970-11 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C5898 | 1-162-964-11 | CERAMIC CHIP 0.001UF | 10.00% 50V |
| C5899 | 1-107-823-11 | CERAMIC CHIP 0.47UF | 10.00% 16V |
| C6200 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6201 | 1-126-935-11 | ELECT 470UF | 20.00% 16V |
| C6202 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6203 | 1-126-935-11 | ELECT 470UF | 20.00% 10V |
| C6204 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6205 | 1-126-935-11 | ELECT 470UF | 20.00% 10V |
| C6206 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6207 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6208 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6209 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6210 | 1-126-935-11 | ELECT 470UF | 20.00% 16V |
| C6211 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C6212 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6213 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C6214 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C7002 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C7004 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C7008 | 1-162-919-11 | CERAMIC CHIP 22PF | 5.00% 50V |
| C7016 | 1-107-823-11 | CERAMIC CHIP 0.47UF | 10.00% 16V |
| C7018 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7019 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7020 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7021 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7022 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7023 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| C7030 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7031 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7032 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7038 | 1-107-823-11 | CERAMIC CHIP 0.47UF | 10.00% 16V |
| C7039 | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V |
| C7050 | 1-162-927-11 | CERAMIC CHIP 100PF | 5.00% 50V |
| C7051 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7052 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7053 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7054 | 1-126-963-11 | ELECT 4.7UF | 20.00% 50V |
| C7055 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C7056 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C7057 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C7058 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C7059 | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C7060 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C7061 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7062 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7063 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C7064 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C7065 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C7067 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C7068 | 1-164-222-91 | CERAMIC CHIP 0.22UF | 25V |
| C7069 | 1-162-919-11 | CERAMIC CHIP 22PF | 5.00% 50V |
| C7070 | 1-162-919-11 | CERAMIC CHIP 22PF | 5.00% 50V |
| C7071 | 1-162-919-11 | CERAMIC CHIP 22PF | 5.00% 50V |
| | | < CONNECTOR > | |
| CN0101 | 1-823-330-11 | CONNECTOR, BOARD TO BOARD 40P | |
| CN0102 | *1-564-520-11 | PLUG, CONNECTOR 5P | |
| CN0103 | *1-564-507-11 | PLUG, CONNECTOR 4P | |
| CN1000 | 1-770-130-11 | CONNECTOR (SQUARE TYPE) 21P | |
| CN1001 | 1-770-130-11 | CONNECTOR (SQUARE TYPE) 21P | |
| CN2000 | *1-564-512-11 | PLUG, CONNECTOR 9P | |
| CN2500 | *1-564-506-11 | PLUG, CONNECTOR 3P | |
| CN2501 | *1-564-507-11 | PLUG, CONNECTOR 4P | |
| CN2502 | *1-564-509-11 | PLUG, CONNECTOR 6P | |
| CN5002 | *1-564-510-11 | PLUG, CONNECTOR 7P | |
| CN5100 | *1-564-506-11 | PLUG, CONNECTOR 3P | |
| CN5200 | *1-564-506-11 | PLUG, CONNECTOR 3P | |
| CN5801 | *1-764-333-11 | PLUG, CONNECTOR 10P | |
| CN6200 | *1-564-507-11 | PLUG, CONNECTOR 4P | |
| CN6202 | *1-564-516-11 | PLUG, CONNECTOR 13P | |
| CN6203 | 1-695-915-11 | TAB (CONTACT) | |
| CN7000 | *1-564-508-11 | PLUG, CONNECTOR 5P | |
| CN7001 | *1-564-512-11 | PLUG, CONNECTOR 9P | |
| CN8001 | 1-766-281-11 | PIN, CONNECTOR (PC BOARD) 8P | |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| | | < DIODE > | |
| D0101 | 8-719-923-84 | DIODE MTZJ-T-77-13B | |
| D0104 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D0110 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D0111 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D0112 | 8-719-923-84 | DIODE MTZJ-T-77-13B | |
| D1006 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D2014 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D2015 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D2016 | 8-719-050-38 | DIODE M1MA152WK-T1 | |
| D2018 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D2019 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D2500 | 8-719-050-38 | DIODE M1MA152WK-T1 | |
| D2502 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D2503 | 8-719-050-38 | DIODE M1MA152WK-T1 | |
| D3001 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3003 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3005 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3007 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D3008 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D3009 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3011 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3013 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3015 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3017 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D3018 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D3019 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3026 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3028 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D3201 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D5103 | 8-719-110-88 | DIODE RD39ES-B2 | |
| D5104 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D5200 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D5201 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| D5202 | 8-719-050-38 | DIODE M1MA152WK-T1 | |
| D5300 | 8-719-081-97 | DIODE MMDL914T1 | |
| D5303 | 8-719-081-97 | DIODE MMDL914T1 | |
| D5304 | 8-719-081-97 | DIODE MMDL914T1 | |
| D5305 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D5306 | 8-719-302-43 | DIODE EL1Z | |
| D5307 | 8-719-987-87 | DIODE ERA85-009 | |
| D5308 | 8-719-081-97 | DIODE MMDL914T1 | |
| D5309 | 8-719-081-97 | DIODE MMDL914T1 | |
| D5400 | 8-719-982-03 | DIODE MTZJ-3.6A | |
| D5401 | 8-719-050-38 | DIODE M1MA152WK-T1 | |
| D5404 | 8-719-110-41 | DIODE RD15ES-B2 | |
| D5405 | 8-719-908-03 | DIODE GP08D | |
| D5807 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| D5809 | 8-719-050-38 | DIODE M1MA152WK-T1 | |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| D5811 | 8-719-081-97 | DIODE MMDL914T1 | |
| D5812 | 8-719-081-97 | DIODE MMDL914T1 | |
| D6200 | 8-719-063-70 | DIODE D1NL20U | |
| D7004 | 8-719-929-15 | DIODE HZS9.1NB2 | |
| | | < FERRITE BEAD > | |
| FB3001 | 1-414-760-21 | FERRITE 0UH | |
| | | < FILTER > | |
| FL2000 | 1-239-803-11 | FILTER, EMI | |
| | | < IC > | |
| IC2000 | 6-701-031-01 | IC MSP3411G-QA-B10 | |
| IC2001 | 8-759-100-96 | IC UPC4558G2 | |
| IC2500 | 8-759-831-56 | IC TDA7497 | |
| IC3200 | 6-700-505-01 | IC VPS9402-A32GEG | |
| IC5103 | 8-752-072-94 | IC CXA1875AM-T4 | |
| IC5104 | 8-759-803-42 | IC LA6500-FA | |
| IC5200 | 8-759-595-52 | IC CXA8070AP | |
| IC5201 | 8-759-903-16 | IC LM318P | |
| IC5300 | 8-759-008-70 | IC LM358N | |
| IC5301 | 8-759-450-95 | IC LM393N | |
| IC5302 | 8-759-450-95 | IC LM393N | |
| IC5400 | 8-759-192-71 | IC STV9379 | |
| IC6200 | 8-759-648-19 | IC L7809CV/LSY | |
| IC6201 | 8-759-648-20 | IC L7805CV/LSY | |
| IC6202 | 8-759-445-59 | IC BA033T | |
| IC6203 | 8-759-098-24 | IC PQ30RV11 | |
| IC6205 | 8-759-394-35 | IC BA12T | |
| IC6206 | 8-759-991-41 | IC LM78L05ACZ | |
| IC6207 | 8-759-445-59 | IC BA033T | |
| IC7002 | 8-752-090-88 | IC CXA2100AQ-TL | |
| | | < JACK > | |
| J2000 | 1-784-632-11 | JACK, PIN 2P | |
| | | < COIL > | |
| L1000 | 1-412-987-41 | INDUCTOR 4.7UH | |
| L1001 | 1-412-987-41 | INDUCTOR 4.7UH | |
| L1002 | 1-414-934-21 | INDUCTOR 10UH | |
| L1003 | 1-414-934-21 | INDUCTOR 10UH | |
| L1005 | 1-414-934-21 | INDUCTOR 10UH | |
| L2000 | 1-414-934-21 | INDUCTOR 10UH | |
| L2001 | 1-414-934-21 | INDUCTOR 10UH | |
| L2007 | 1-408-602-31 | INDUCTOR 8.2UH | |
| L2008 | 1-216-295-91 | SHORT 0 | |
| L2009 | 1-216-295-91 | SHORT 0 | |
| L2010 | 1-414-928-21 | INDUCTOR 1UH | |
| L2012 | 1-414-934-21 | INDUCTOR 10UH | |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| L2013 | 1-414-928-21 | INDUCTOR 1UH | |
| L2014 | 1-408-602-31 | INDUCTOR 8.2UH | |
| L2500 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| L2501 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| L3000 | 1-216-295-91 | SHORT 0 | |
| L3004 | 1-216-295-91 | SHORT 0 | |
| L3005 | 1-216-295-91 | SHORT 0 | |
| L3006 | 1-216-295-91 | SHORT 0 | |
| L3007 | 1-216-295-91 | SHORT 0 | |
| L3008 | 1-216-295-91 | SHORT 0 | |
| L3009 | 1-216-295-91 | SHORT 0 | |
| L3010 | 1-216-295-91 | SHORT 0 | |
| L3011 | 1-216-295-91 | SHORT 0 | |
| L3012 | 1-216-295-91 | SHORT 0 | |
| L3200 | 1-412-006-31 | INDUCTOR 10UH | |
| L3202 | 1-412-006-31 | INDUCTOR 10UH | |
| L3203 | 1-412-006-31 | INDUCTOR 10UH | |
| L3206 | 1-412-006-31 | INDUCTOR 10UH | |
| L3208 | 1-412-006-31 | INDUCTOR 10UH | |
| L3300 | 1-412-006-31 | INDUCTOR 10UH | |
| L5300 | 1-406-989-21 | INDUCTOR 10MH | |
| L5301 | 1-406-989-21 | INDUCTOR 10MH | |
| L5400 | 1-412-524-11 | INDUCTOR 8.2UH | |
| L5898 | 1-414-934-21 | INDUCTOR 10UH | |
| L5899 | 1-414-934-21 | INDUCTOR 10UH | |
| L7001 | 1-414-934-21 | INDUCTOR 10UH | |
| L7009 | 1-414-934-21 | INDUCTOR 10UH | |
| L7010 | 1-414-934-21 | INDUCTOR 10UH | |
| L7011 | 1-414-934-21 | INDUCTOR 10UH | |
| L7012 | 1-414-934-21 | INDUCTOR 10UH | |
| | | < TRANSISTOR > | |
| Q1000 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q1001 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q1004 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q1005 | 8-729-421-19 | TRANSISTOR UN2213 | |
| Q1006 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q2000 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q2001 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q2002 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q2003 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q2501 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q2502 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q2503 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q3201 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q3204 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q3300 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q3301 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q3302 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q3500 | 8-729-028-28 | TRANSISTOR 2SK2036(TE85L) | |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| Q3501 | 8-729-028-28 | TRANSISTOR 2SK2036(TE85L) | |
| Q5101 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q5200 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q5201 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q5202 | 8-729-045-04 | TRANSISTOR 2SC5511 | |
| Q5203 | 8-729-044-59 | TRANSISTOR 2SA1837(LBS2SON) | |
| Q5204 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q5205 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q5300 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q5301 | 8-729-053-33 | TRANSISTOR IRF614-037 | |
| Q5302 | 8-729-140-97 | TRANSISTOR 2SB734-34 | |
| Q5303 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q5304 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q5305 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q5306 | 8-729-140-97 | TRANSISTOR 2SB734-34 | |
| Q5400 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q5401 | 8-729-421-19 | TRANSISTOR UN2213 | |
| Q5402 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q5403 | 8-729-421-19 | TRANSISTOR UN2213 | |
| Q5404 | 8-729-039-68 | TRANSISTOR IRF620 | |
| Q5813 | 8-729-421-19 | TRANSISTOR UN2213 | |
| Q5814 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q5815 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q5816 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q7003 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q7009 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q7011 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q7012 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q7013 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q7014 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q7015 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q7016 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q7017 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q7018 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q7019 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| | < RESISTOR > | | |
| JR0101 | 1-216-295-91 | SHORT 0 | |
| JR2000 | 1-216-295-91 | SHORT 0 | |
| R0101 | 1-216-833-11 | RES-CHIP 10K 5% | 1/16W |
| R0102 | 1-216-827-11 | RES-CHIP 3.3K 5% | 1/16W |
| R0103 | 1-216-073-91 | RES-CHIP 10K 5% | 1/10W |
| R0104 | 1-216-827-11 | RES-CHIP 3.3K 5% | 1/16W |
| R0107 | 1-216-025-11 | RES-CHIP 100 5% | 1/10W |
| R1000 | 1-216-049-11 | RES-CHIP 1K 5% | 1/10W |
| R1001 | 1-216-001-00 | RES-CHIP 10 5% | 1/10W |
| R1002 | 1-216-821-11 | RES-CHIP 1K 5% | 1/16W |
| R1003 | 1-216-809-91 | RES-CHIP 100 5% | 1/16W |
| R1004 | 1-216-809-91 | RES-CHIP 100 5% | 1/16W |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| R1005 | 1-216-049-11 | RES-CHIP 1K 5% | 1/10W |
| R1006 | 1-216-051-00 | RES-CHIP 1.2K 5% | 1/10W |
| R1007 | 1-414-813-11 | FERRITE 0UH | |
| R1008 | 1-216-295-91 | SHORT 0 | |
| R1009 | 1-216-295-91 | SHORT 0 | |
| R1010 | 1-216-295-91 | SHORT 0 | |
| R1017 | 1-216-822-11 | RES-CHIP 1.2K 5% | 1/16W |
| R1019 | 1-216-295-91 | SHORT 0 | |
| R1021 | 1-216-833-11 | RES-CHIP 10K 5% | 1/16W |
| R1022 | 1-216-839-91 | RES-CHIP 33K 5% | 1/16W |
| R1023 | 1-216-849-11 | RES-CHIP 220K 5% | 1/16W |
| R1024 | 1-216-839-11 | RES-CHIP 33K 5% | 1/16W |
| R1025 | 1-216-837-11 | RES-CHIP 22K 5% | 1/16W |
| R1026 | 1-216-817-11 | RES-CHIP 470 5% | 1/16W |
| R2017 | 1-216-853-11 | RES-CHIP 470K 5% | 1/16W |
| R2020 | 1-216-853-11 | RES-CHIP 470K 5% | 1/16W |
| R2023 | 1-216-853-11 | RES-CHIP 470K 5% | 1/16W |
| R2026 | 1-216-853-11 | RES-CHIP 470K 5% | 1/16W |
| R2029 | 1-216-853-11 | RES-CHIP 470K 5% | 1/16W |
| R2032 | 1-216-853-11 | RES-CHIP 470K 5% | 1/16W |
| R2035 | 1-216-853-11 | RES-CHIP 470K 5% | 1/16W |
| R2042 | 1-216-829-91 | RES-CHIP 4.7K 5% | 1/16W |
| R2043 | 1-216-829-91 | RES-CHIP 4.7K 5% | 1/16W |
| R2046 | 1-216-295-91 | SHORT 0 | |
| R2048 | 1-216-837-11 | RES-CHIP 22K 5% | 1/16W |
| R2050 | 1-216-845-11 | RES-CHIP 100K 5% | 1/16W |
| R2051 | 1-216-049-11 | RES-CHIP 1K 5% | 1/10W |
| R2052 | 1-216-837-11 | RES-CHIP 22K 5% | 1/16W |
| R2053 | 1-216-817-11 | RES-CHIP 470 5% | 1/16W |
| R2054 | 1-216-049-11 | RES-CHIP 1K 5% | 1/10W |
| R2056 | 1-216-037-91 | RES-CHIP 330 5% | 1/10W |
| R2057 | 1-216-025-11 | RES-CHIP 100 5% | 1/10W |
| R2058 | 1-216-025-11 | RES-CHIP 100 5% | 1/10W |
| R2059 | 1-216-829-11 | RES-CHIP 4.7K 5% | 1/16W |
| R2060 | 1-216-829-11 | RES-CHIP 4.7K 5% | 1/16W |
| R2061 | 1-216-829-11 | RES-CHIP 4.7K 5% | 1/16W |
| R2062 | 1-216-829-11 | RES-CHIP 4.7K 5% | 1/16W |
| R2065 | 1-216-837-11 | RES-CHIP 22K 5% | 1/16W |
| R2069 | 1-216-837-11 | RES-CHIP 22K 5% | 1/16W |
| R2070 | 1-216-833-11 | RES-CHIP 10K 5% | 1/16W |
| R2071 | 1-216-839-91 | RES-CHIP 33K 5% | 1/16W |
| R2072 | 1-216-049-91 | RES-CHIP 1K 5% | 1/10W |
| R2073 | 1-216-049-91 | RES-CHIP 1K 5% | 1/10W |
| R2074 | 1-216-837-11 | RES-CHIP 22K 5% | 1/16W |
| R2075 | 1-216-833-11 | RES-CHIP 10K 5% | 1/16W |
| R2076 | 1-216-839-91 | RES-CHIP 33K 5% | 1/16W |
| R2077 | 1-216-049-11 | RES-CHIP 1K 5% | 1/10W |
| R2078 | 1-216-025-11 | RES-CHIP 100 5% | 1/10W |
| R2079 | 1-216-049-11 | RES-CHIP 1K 5% | 1/10W |
| R2080 | 1-216-831-11 | RES-CHIP 6.8K 5% | 1/16W |

| REF.NO. | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R2081 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2082 | 1-216-031-91 | RES-CHIP | 180 | 5% | 1/10W |
| R2083 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R2090 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R2091 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R2092 | 1-216-039-00 | RES-CHIP | 390 | 5% | 1/10W |
| R2093 | 1-216-039-00 | RES-CHIP | 390 | 5% | 1/10W |
| R2094 | 1-216-039-00 | RES-CHIP | 390 | 5% | 1/10W |
| R2095 | 1-216-039-00 | RES-CHIP | 390 | 5% | 1/10W |
| R2098 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2099 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2500 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R2502 | 1-208-810-11 | METAL CHIP | 15K | 0.5% | 1/10W |
| R2503 | 1-208-810-11 | METAL CHIP | 15K | 0.5% | 1/10W |
| R2504 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2507 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R2509 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R2511 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R2515 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R2516 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R2517 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R2518 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2519 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R2520 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R2912 | 1-216-295-91 | SHORT | 0 | | |
| R2914 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R2921 | 1-216-295-91 | SHORT | 0 | | |
| R2924 | 1-216-295-91 | SHORT | 0 | | |
| R2927 | 1-216-295-91 | SHORT | 0 | | |
| R2930 | 1-216-295-91 | SHORT | 0 | | |
| R2933 | 1-216-295-91 | SHORT | 0 | | |
| R3000 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3001 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3009 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3010 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3011 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3012 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3013 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3014 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3015 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3016 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3017 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3018 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3019 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3020 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3021 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3022 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3023 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3024 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3025 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |

| REF.NO. | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R3026 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3027 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3028 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3034 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3035 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3036 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R3037 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R3218 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R3220 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R3222 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R3225 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3226 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3229 | 1-216-025-91 | RES-CHIP | 100 | 5% | 1/10W |
| R3233 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R3236 | 1-216-822-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R3238 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R3305 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3306 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3312 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R3313 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R3318 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3319 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3320 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3321 | 1-216-864-11 | SHORT | 0 | | |
| R3322 | 1-216-864-11 | SHORT | 0 | | |
| R3323 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R3500 | 1-216-834-91 | RES-CHIP | 12K | 5% | 1/16W |
| R3501 | 1-216-834-91 | RES-CHIP | 12K | 5% | 1/16W |
| R3504 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R3505 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R3600 | 1-216-295-91 | SHORT | 0 | | |
| R3601 | 1-216-295-91 | SHORT | 0 | | |
| R3602 | 1-216-295-91 | SHORT | 0 | | |
| R5118 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R5119 | 1-216-840-11 | RES-CHIP | 39K | 5% | 1/16W |
| R5122 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R5125 | 1-216-836-11 | RES-CHIP | 18K | 5% | 1/16W |
| R5126 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R5128 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5129 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5130 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5131 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R5132 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5133 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5137 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5138 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5139 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R5140 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R5141 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5143 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |

| REF.NO. | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R5144 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R5145 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5147 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5150 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R5151 | 1-249-454-11 | CARBON | 3.9 | 5% | 1/4W |
| R5152 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R5153 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R5154 | 1-216-833-91 | RES-CHIP | 10K | 5% | 1/16W |
| R5155 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R5156 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5157 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R5201 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R5203 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5204 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5206 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R5207 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5208 | 1-212-849-00 | FUSIBLE | 4.7 | 5% | 1/4W |
| R5209 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5210 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R5211 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R5214 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R5215 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5217 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5218 | 1-260-321-51 | CARBON | 270 | 5% | 1/2W |
| R5219 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R5220 | 1-215-886-11 | METAL OXIDE | 100 | 5% | 2W |
| R5222 | 1-216-678-11 | METAL CHIP | 13K | 0.5% | 1/10W |
| R5223 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R5225 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5226 | 1-212-849-00 | FUSIBLE | 4.7 | 5% | 1/4W |
| R5227 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5228 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5229 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R5230 | 1-216-677-11 | METAL CHIP | 12K | 0.5% | 1/10W |
| R5231 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5232 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R5233 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5234 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5235 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5237 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5238 | 1-216-393-00 | METAL OXIDE | 2.2 | 5% | 3W |
| R5239 | 1-208-848-11 | METAL CHIP | 560K | 0.5% | 1/10W |
| R5241 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R5300 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R5301 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R5302 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R5303 | 1-208-816-11 | METAL CHIP | 27K | 0.5% | 1/10W |
| R5304 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R5305 | *1-208-852-11 | METAL CHIP | 820K | 0.5% | 1/10W |
| R5306 | 1-208-803-11 | METAL CHIP | 7.5K | 0.5% | 1/10W |
| R5307 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R5308 | 1-216-295-91 | SHORT | 0 | | |
| R5309 | 1-208-824-91 | RES-CHIP | 56K | 0.5% | 1/10W |
| R5310 | 1-208-830-11 | METAL CHIP | 100K | 0.5% | 1/10W |
| R5311 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R5312 | 1-208-832-11 | METAL CHIP | 120K | 0.5% | 1/10W |
| R5314 | 1-208-840-11 | METAL CHIP | 270K | 0.5% | 1/10W |
| R5315 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R5316 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5317 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R5318 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R5319 | 1-208-840-11 | METAL CHIP | 270K | 0.5% | 1/10W |
| R5320 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5321 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R5322 | 1-216-820-11 | RES-CHIP | 820 | 5% | 1/16W |
| R5324 | 1-208-810-11 | METAL CHIP | 15K | 0.5% | 1/10W |
| R5325 | 1-208-812-11 | METAL CHIP | 18K | 0.5% | 1/10W |
| R5326 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R5327 | 1-216-472-00 | METAL OXIDE | 39 | 5% | 3W |
| R5328 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R5331 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R5332 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R5333 | 1-208-820-91 | RES-CHIP | 39K | 0.5% | 1/10W |
| R5334 | 1-208-834-91 | RES-CHIP | 150K | 0.5% | 1/10W |
| R5335 | 1-208-818-11 | METAL CHIP | 33K | 0.5% | 1/10W |
| R5336 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5337 | 1-216-831-11 | RES-CHIP | 6.8K | 5% | 1/16W |
| R5338 | 1-247-823-91 | CARBON | 470 | 5% | 1/4W |
| R5340 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5341 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5342 | 1-208-818-11 | METAL CHIP | 33K | 0.5% | 1/10W |
| R5343 | 1-208-808-11 | METAL CHIP | 12K | 0.5% | 1/10W |
| R5344 | 1-208-820-11 | METAL CHIP | 39K | 0.5% | 1/10W |
| R5345 | 1-208-832-11 | METAL CHIP | 120K | 0.5% | 1/10W |
| R5346 | 1-216-849-11 | RES-CHIP | 220K | 5% | 1/16W |
| R5400 | 1-216-849-11 | RES-CHIP | 220K | 5% | 1/16W |
| R5401 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R5402 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R5403 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R5404 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R5405 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R5407 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R5408 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5409 | 1-208-802-11 | METAL CHIP | 6.8K | 0.5% | 1/10W |
| R5410 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R5411 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R5413 | 1-208-802-11 | METAL CHIP | 6.8K | 0.5% | 1/10W |
| R5414 | 1-249-383-11 | CARBON | 1.5 | 5% | 1/4W |
| R5415 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R5416 | 1-215-888-00 | METAL OXIDE | 220 | 5% | 2W |

| REF.NO. | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R5417 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R5420 | 1-214-798-21 | METAL | 1.8 | 1% | 1/2W |
| R5421 | 1-214-798-21 | METAL | 1.8 | 1% | 1/2W |
| R5803 | 1-216-861-11 | RES-CHIP | 2.2M | 5% | 1/16W |
| R5804 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5805 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5806 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5807 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5808 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5809 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5865 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R5869 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R5871 | 1-216-850-11 | RES-CHIP | 270K | 5% | 1/16W |
| R5875 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5877 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R5878 | 1-216-295-91 | SHORT | 0 | | |
| R5879 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5880 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5881 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5882 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5883 | 1-216-857-91 | RES-CHIP | 1M | 5% | 1/16W |
| R5884 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R5885 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5887 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5888 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R5889 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R5892 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5895 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5898 | 1-216-832-11 | RES-CHIP | 8.2K | 5% | 1/16W |
| R5899 | 1-216-863-11 | RES-CHIP | 3.3M | 5% | 1/16W |
| R6200 | 1-216-635-11 | METAL CHIP | 220 | 0.5% | 1/10W |
| R6201 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W |
| R7007 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R7018 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R7023 | 1-216-834-11 | RES-CHIP | 12K | 5% | 1/16W |
| R7034 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R7035 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R7048 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R7050 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7051 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R7052 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R7053 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R7054 | 1-216-847-11 | RES-CHIP | 150K | 5% | 1/16W |
| R7056 | 1-216-831-11 | RES-CHIP | 6.8K | 5% | 1/16W |
| R7057 | 1-216-842-11 | RES-CHIP | 56K | 5% | 1/16W |
| R7058 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R7065 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7066 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7068 | 1-216-681-91 | METAL CHIP | 18K | 0.5% | 1/10W |
| R7070 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7071 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7072 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7073 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R7074 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R7075 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7076 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R7077 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R7078 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7079 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R7080 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R7081 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7082 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7087 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7088 | 1-216-821-91 | RES-CHIP | 1K | 5% | 1/16W |
| R7089 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R7090 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R7091 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R7092 | 1-216-295-91 | SHORT | 0 | | |
| R7093 | 1-216-295-91 | SHORT | 0 | | |
| R7094 | 1-216-295-91 | SHORT | 0 | | |
| R7095 | 1-216-295-91 | SHORT | 0 | | |
| R7096 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R7097 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R7098 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |

< VARIABLE RESISTOR >

| | | | |
|---|---|---|---|
| RV5101 | 1-238-600-11 | RES, ADJ, CARBON | 10.0K |

< CRYSTAL >

| | | | |
|---|---|---|---|
| X2000 | 1-760-628-11 | VIBRATOR, CRYSTAL | |
| X3200 | 1-781-946-21 | VIBRATOR, CRYSTAL | |
| X5800 | 1-767-127-11 | VIBRATOR, CERAMIC | |

## A Board Variant Parts KV-29LS60B

< CAPACITOR >

| | | | | | |
|---|---|---|---|---|---|
| C1011 | 1-163-253-11 | CERAMIC CHIP | 120PF | 5.00% | 50V |
| C1012 | 1-163-245-91 | CERAMIC CHIP | 56PF | 5.00% | 50V |
| C1016 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0.50PF | 50V |
| C1017 | 1-163-247-91 | CERAMIC CHIP | 68PF | 5.00% | 50V |

< COIL >

| | | | |
|---|---|---|---|
| L1004 | 1-412-751-11 | INDUCTOR | 18UH |

< TRANSISTOR >

| | | |
|---|---|---|
| Q1002 | 8-729-010-29 | TRANSISTOR MSD601-RST1 |
| Q1003 | 8-729-027-43 | TRANSISTOR DTC114EKA-T146 |

| REF.NO. | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| | | < RESISTOR > | | | |
| R1011 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R1012 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R1014 | NOT FITTED | | | | |
| R1015 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R1016 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R1018 | 1-216-825-91 | RES-CHIP | 2.2K | 5% | 1/16W |
| R1020 | 1-216-295-91 | SHORT | 0 | | |
| | | < TUNER > | | | |
| TU1000 | 8-598-535-11 | FRONTEND BTF-EF411 | | | |

## A Board Variant Parts KV-29LS60E/29LS60K

| | | | | | |
|---|---|---|---|---|---|
| | | < CAPACITOR > | | | |
| C1011 | NOT FITTED | | | | |
| C1012 | NOT FITTED | | | | |
| C1016 | NOT FITTED | | | | |
| C1017 | NOT FITTED | | | | |
| | | < COIL > | | | |
| L1004 | NOT FITTED | | | | |
| | | < TRANSISTOR > | | | |
| Q1002 | NOT FITTED | | | | |
| Q1003 | NOT FITTED | | | | |
| | | < RESISTOR > | | | |
| R1011 | NOT FITTED | | | | |
| R1012 | NOT FITTED | | | | |
| R1014 | 1-216-295-91 | SHORT | 0 | | |
| R1015 | NOT FITTED | | | | |
| R1016 | NOT FITTED | | | | |
| R1018 | NOT FITTED | | | | |
| R1020 | NOT FITTED | | | | |
| | | < TUNER > | | | |
| TU1000 | 8-598-533-01 | FRONTEND BTF-EC411 | | | |

## *A-1634-062-A M Board, Complete

| | | | | | |
|---|---|---|---|---|---|
| | | < CAPACITOR > | | | |
| C0001 | 1-107-826-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C0002 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C0004 | 1-165-128-11 | CERAMIC CHIP | 0.22UF | | 16V |
| C0006 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C0007 | 1-107-826-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C0008 | 1-107-826-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C0009 | 1-165-128-11 | CERAMIC CHIP | 0.22UF | | 16V |
| C0010 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C0011 | 1-165-128-11 | CERAMIC CHIP | 0.22UF | | 16V |
| C0012 | 1-162-924-11 | CERAMIC CHIP | 56PF | 5.00% | 50V |
| C0013 | 1-165-128-11 | CERAMIC CHIP | 0.22UF | | 16V |
| C0015 | 1-135-834-91 | CERAMIC CHIP | 2.2E+06PF | | 6.3V |
| C0016 | 1-165-128-11 | CERAMIC CHIP | 0.22UF | | 16V |
| C0017 | 1-162-924-11 | CERAMIC CHIP | 56PF | 5.00% | 50V |
| C0019 | 1-165-128-11 | CERAMIC CHIP | 0.22UF | | 16V |
| C0025 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C0026 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C0027 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C0028 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| | | < CONNECTOR > | | | |
| CN0001 | 1-793-497-11 | CONNECTOR, BOARD TO BOARD 40P | | | |
| | | < DIODE > | | | |
| D0001 | 8-719-992-02 | DIODE RB705D | | | |
| D0301 | 8-719-069-56 | DIODE UDZSTE-176.2B | | | |
| | | < FERRITE BEAD > | | | |
| FB0003 | 1-216-295-91 | SHORT | 0 | | |
| FB0004 | 1-412-006-41 | INDUCTOR | 10UH | | |
| FB0005 | 1-216-864-11 | SHORT | 0 | | |
| FB0006 | 1-216-864-11 | SHORT | 0 | | |
| FB0007 | 1-216-295-91 | SHORT | 0 | | |
| FB0008 | 1-216-295-91 | SHORT | 0 | | |
| FB0009 | 1-412-006-31 | INDUCTOR | 10UH | | |
| FB0010 | 1-216-295-91 | SHORT | 0 | | |
| FB0011 | 1-412-006-31 | INDUCTOR | 10UH | | |
| FB0012 | 1-216-295-91 | SHORT | 0 | | |
| FB0015 | 1-216-864-11 | SHORT | 0 | | |
| FB0016 | 1-216-864-11 | SHORT | 0 | | |
| FB0017 | 1-216-295-91 | SHORT | 0 | | |
| FB0018 | 1-216-295-91 | SHORT | 0 | | |
| FB0019 | 1-216-295-91 | SHORT | 0 | | |
| FB0020 | 1-216-295-91 | SHORT | 0 | | |
| | | < IC > | | | |
| IC0001 | 8-759-699-33 | IC M24C16-MN6T(A) | | | |
| IC0002 | 6-700-502-01 | IC SAA5665HL/M1D/0358 | | | |
| IC0003 | 8-759-672-39 | IC PST573IMT | | | |
| IC0004 | 8-759-665-11 | IC LM393DT | | | |
| IC0005 | 6-700-132-01 | IC K6T2008V2A-YF70T00 | | | |
| | | < TRANSISTOR > | | | |
| Q0002 | 8-729-424-08 | TRANSISTOR UN2111 | | | |
| Q0003 | 8-729-424-08 | TRANSISTOR UN2111 | | | |

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

**M G**

| REF.NO. | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| Q0006 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | | | |
| Q0007 | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 | | | |
| Q0008 | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 | | | |
| Q0009 | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 | | | |
| Q0010 | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 | | | |
| Q0011 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | | | |
| Q0012 | 8-729-424-08 | TRANSISTOR UN2111 | | | |
| Q0013 | 8-729-421-22 | TRANSISTOR UN2211 | | | |
| | | < RESISTOR > | | | |
| R0001 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R0002 | 1-216-055-00 | RES-CHIP | 1.8K | 5% | 1/10W |
| R0003 | 1-216-295-91 | SHORT | 0 | | |
| R0011 | 1-216-295-91 | SHORT | 0 | | |
| R0014 | 1-216-081-91 | RES-CHIP | 22K | 5% | 1/10W |
| R0016 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R0017 | 1-216-093-91 | RES-CHIP | 68K | 5% | 1/10W |
| R0018 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R0019 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R0020 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R0022 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0023 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R0027 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R0028 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0029 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R0030 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R0032 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0033 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0034 | 1-218-725-11 | RES-CHIP | 24K | 5% | 1/16W |
| R0035 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W |
| R0037 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R0039 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0040 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0041 | 1-216-057-91 | RES-CHIP | 2.2K | 5% | 1/10W |
| R0042 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W |
| R0043 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R0044 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R0045 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R0046 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R0047 | 1-216-810-11 | RES-CHIP | 120 | 5% | 1/16W |
| R0048 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0049 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R0050 | 1-216-810-11 | RES-CHIP | 120 | 5% | 1/16W |
| R0051 | 1-216-835-91 | RES-CHIP | 15K | 5% | 1/16W |
| R0052 | 1-216-810-11 | RES-CHIP | 120 | 5% | 1/16W |
| R0053 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0054 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0055 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0056 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R0057 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0058 | 1-216-823-91 | RES-CHIP | 1.5K | 5% | 1/16W |
| R0059 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R0060 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R0061 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R0062 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R0063 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R0065 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R0066 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R0067 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R0068 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R0069 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R0070 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R0071 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0072 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0073 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0074 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R0075 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R0076 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R0078 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R0079 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R0301 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R0302 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R0303 | 1-216-836-11 | RES-CHIP | 18K | 5% | 1/16W |
| R0304 | 1-216-831-11 | RES-CHIP | 6.8K | 5% | 1/16W |
| | | < CRYSTAL > | | | |
| X0001 | 1-578-774-11 | VIBRATOR, CRYSTAL | | | |

## *A-1637-024-A G Board, Complete

| | | | | | |
|---|---|---|---|---|---|
| | 4-382-854-01 | SCREW (M3X8), P, SW (+) | | | |
| | | < CAPACITOR > | | | |
| C6001 | ⚠ 1-137-999-11 | FILM | 0.1UF | | 275V |
| C6002 | ⚠ 1-137-999-11 | FILM | 0.1UF | | 275V |
| C6003 | ⚠ 1-119-887-51 | CERAMIC | 1000PF | 20.00% | 250V |
| C6004 | ⚠ 1-119-887-51 | CERAMIC | 1000PF | 20.00% | 250V |
| C6005 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C6006 | 1-117-753-11 | ELECT(BLOCK) | 470UF | 20.00% | 450V |
| C6007 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C6008 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C6010 | 1-136-165-00 | FILM | 0.1UF | 5.00% | 50V |
| C6011 | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C6012 | 1-161-830-00 | CERAMIC | 0.0047UF | | 500V |
| C6013 | 1-161-830-00 | CERAMIC | 0.0047UF | | 500V |
| C6015 | 1-115-339-11 | CERAMIC CHIP | 0.1UF | 10.00% | 50V |
| C6016 | 1-161-830-00 | CERAMIC | 0.0047UF | | 500V |
| C6017 | 1-161-830-00 | CERAMIC | 0.0047UF | | 500V |
| C6018 | 1-126-949-11 | ELECT | 220UF | 20.00% | 35V |
| C6019 | 1-164-645-11 | CERAMIC | 1000PF | 10.00% | 500V |

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

**G**

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| C6020 | 1-135-946-21 | FILM 47000PF 3% 800V | |
| C6021 | 1-164-645-11 | CERAMIC 1000PF 10.00% 500V | |
| C6022 | 1-126-963-11 | ELECT 4.7UF 20.00% 50V | |
| C6023 | 1-110-626-41 | ELECT 330UF 20.00% 160V | |
| C6024 | 1-164-625-91 | CERAMIC CHIP 680PF 10.00% 500V | |
| C6026 | 1-164-625-91 | CERAMIC CHIP 680PF 10.00% 500V | |
| C6027 | 1-164-625-91 | CERAMIC CHIP 680PF 10.00% 500V | |
| C6028 | 1-128-548-11 | ELECT 4700UF 20.00% 25V | |
| C6029 | 1-126-939-11 | ELECT 10000UF 20.00% 16V | |
| C6030 | 1-119-940-51 | ELECT 4700UF 20.00% 50V | |
| C6031 | 1-535-143-71 | LEAD,JUMPER (7.5MM) | |
| C6032 | 1-127-802-51 | CERAMIC CHIP 0.01UF 20.00% 250V | |
| C6033 | 1-162-964-11 | CERAMIC CHIP 0.001UF 10.00% 50V | |
| C6035 | 1-136-165-00 | FILM 0.1UF 5.00% 50V | |
| C6036 | 1-136-479-11 | FILM 0.001UF 2.00% 50V | |
| C6037 | 1-126-947-11 | ELECT 47UF 20.00% 25V | |
| C6038 | 1-164-645-91 | CERAMIC CHIP 1000PF 10.00% 500V | |
| C6039 | 1-125-891-91 | CERAMIC CHIP 47UF | |
| C6040 | 1-115-340-11 | CERAMIC CHIP 0.22UF 10.00% 25V | |
| C6045 | 1-115-339-11 | CERAMIC CHIP 0.1UF 10.00% 50V | |
| C6102 | 1-126-943-11 | ELECT 2200UF 20.00% 25V | |
| C6103 | 1-126-971-11 | ELECT 470UF 20.00% 50V | |
| C6105 | 1-126-964-11 | ELECT 10UF 20.00% 50V | |
| C6106 | 1-126-964-11 | ELECT 10UF 20.00% 50V | |
| | | < CONNECTOR > | |
| CN6001 | *1-691-291-11 | PIN, CONNECTOR (PC BOARD) 5P | |
| CN6002 | *1-508-786-00 | PIN, CONNECTOR (5MM PITCH) 2P | |
| CN6003 | *1-508-765-00 | PIN, CONNECTOR (5MM PITCH) 3P | |
| CN6004 | *1-691-960-11 | PIN, CONNECTOR (PC BOARD) 3P | |
| CN6005 | *1-564-509-11 | PLUG, CONNECTOR 6P | |
| CN6006 | *1-564-516-11 | PLUG, CONNECTOR 13P | |
| CN6008 | *1-564-507-11 | PLUG, CONNECTOR 4P | |
| | | < DIODE > | |
| D6001 | 6-500-067-01 | DIODE GSIB460L/45 | |
| D6002 | 8-719-982-26 | DIODE MTZJ-33B | |
| D6004 | 8-719-979-64 | DIODE UF4005PKG23 | |
| D6006 | 8-719-081-97 | DIODE MMDL914T1 | |
| D6007 | 8-719-081-97 | DIODE MMDL914T1 | |
| D6008 | 8-719-063-70 | DIODE D1NL20U | |
| D6009 | 8-719-110-41 | DIODE RD15ES-B2 | |
| D6010 | 8-719-085-24 | DIODE FBIU4D7M1-B | |
| D6016 | 8-719-309-99 | DIODE RBV-406B | |
| D6031 | 8-719-080-59 | DIODE EK19-V0 | |
| D6032 | 8-719-080-59 | DIODE EK19-V0 | |
| D6033 | 8-719-022-99 | DIODE D2S4MTA1 | |
| D6034 | 8-719-022-99 | DIODE D2S4MTA1 | |
| D6101 | 8-719-081-97 | DIODE MMDL914T1 | |
| D6102 | 8-719-511-40 | DIODE S1VB20-S | |
| D6103 | 8-719-081-97 | DIODE MMDL914T1 | |
| D6104 | 8-719-081-97 | DIODE MMDL914T1 | |
| D6105 | 8-719-081-97 | DIODE MMDL914T1 | |
| D6106 | 8-719-081-97 | DIODE MMDL914T1 | |
| D6107 | 8-719-081-97 | DIODE MMDL914T1 | |
| | | < FERRITE BEAD > | |
| FB6002 | 1-410-397-21 | FERRITE 1.1UH | |
| FB6003 | 1-410-397-21 | FERRITE 1.1UH | |
| FB6005 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| FB6006 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| | | < IC > | |
| IC6001 | 8-759-670-30 | IC MCZ3001D | |
| IC6003 | 8-749-016-19 | IC SE135N-LF4 | |
| | | < COIL > | |
| L6001 | 1-406-663-21 | INDUCTOR 47UH | |
| L6002 | 1-412-529-11 | INDUCTOR 22UH | |
| L6003 | 1-412-529-11 | INDUCTOR 22UH | |
| L6004 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| L6005 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| L6006 | 1-406-659-11 | INDUCTOR 10UH | |
| L6007 | 1-412-525-31 | INDUCTOR 10UH | |
| | | < PHOTO COUPLER > | |
| PH6001 ⚠ | 8-749-016-21 | IC TCET1103G | |
| | | < TRANSISTOR > | |
| Q6003 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q6005 | 8-729-029-56 | TRANSISTOR DTA144ESA | |
| Q6006 | 8-729-056-60 | TRANSISTOR SPA07N60C2 | |
| Q6007 | 8-729-056-60 | TRANSISTOR SPA07N60C2 | |
| Q6010 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q6101 | 8-729-029-56 | TRANSISTOR DTA144ESA | |
| Q6102 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q6103 | 8-729-029-56 | TRANSISTOR DTA144ESA | |
| Q6104 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q6105 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| | | < RESISTOR > | |
| JR6004 | 1-216-295-91 | SHORT 0 | |
| R6003 | 1-202-933-61 | FUSIBLE 0.1 10% 1/2W | |
| R6004 | 1-205-998-11 | CEMENTED 1 5% 10W | |
| R6005 | 1-205-998-11 | CEMENTED 1 5% 10W | |
| R6006 | 1-205-998-11 | CEMENTED 1 5% 10W | |
| R6007 | 1-243-979-21 | METAL OXIDE 0.1 5% 2W | |
| R6008 | 1-243-979-21 | METAL OXIDE 0.1 5% 2W | |
| R6009 | 1-208-810-11 | METAL CHIP 15K 0.5% 1/10W | |

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

**G C**

| REF.NO. | | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|---|
| R6010 | | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6013 | ⚠ | 1-218-265-21 | FILM | 8.2M | 5% | 1W |
| R6014 | | 1-215-926-00 | METAL OXIDE | 33K | 5% | 3W |
| R6015 | | 1-208-757-11 | METAL CHIP | 91 | 0.5% | 1/10W |
| R6016 | | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6017 | | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R6018 | | 1-247-895-91 | CARBON | 470K | 5% | 1/4W |
| R6019 | | 1-247-891-00 | CARBON | 330K | 5% | 1/4W |
| R6020 | | 1-216-820-11 | RES-CHIP | 820 | 5% | 1/16W |
| R6021 | | 1-216-362-11 | METAL OXIDE | 0.27 | 5% | 2W |
| R6022 | | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R6024 | | 1-211-964-91 | RES-CHIP | 33 | 0.5% | 1/10W |
| R6029 | | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R6030 | | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R6032 | | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6033 | | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6034 | | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R6035 | | 1-260-083-91 | CARBON | 47 | 5% | 1/2W |
| R6036 | | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R6037 | | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R6038 | | 1-208-830-11 | METAL CHIP | 100K | 0.5% | 1/10W |
| R6039 | | 1-208-830-11 | METAL CHIP | 100K | 0.5% | 1/10W |
| R6040 | | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6042 | | 1-216-295-91 | SHORT | 0 | | |
| R6045 | | 1-208-770-11 | METAL CHIP | 330 | 0.5% | 1/10W |
| R6047 | | 1-208-842-11 | METAL CHIP | 330K | 0.5% | 1/10W |
| R6048 | | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6049 | | 1-208-805-11 | METAL CHIP | 9.1K | 0.5% | 1/10W |
| R6050 | | 1-208-758-11 | METAL CHIP | 100 | 0.5% | 1/10W |
| R6054 | | 1-211-964-91 | RES-CHIP | 33 | 0.5% | 1/10W |
| R6056 | | 1-216-295-91 | SHORT | 0 | | |
| R6101 | | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6102 | | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R6103 | | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6104 | | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6105 | | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6106 | | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R6107 | | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R6108 | | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6109 | | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R6110 | | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| | | | < RELAY > | | | |
| RY6001 | ⚠ | 1-755-395-11 | RELAY (AC POWER) | | | |
| RY6002 | ⚠ | 1-755-389-11 | RELAY (AC POWER) | | | |
| | | | < TRANSFORMER > | | | |
| T6002 | ⚠ | 1-437-443-11 | TRANSFORMER, PIT | | | |
| T6003 | ⚠ | 1-424-896-11 | TRANSFORMER, LINE FILTER | | | |
| T6101 | ⚠ | 1-437-483-11 | TRANSFORMER, STANDBY | | | |
| | | | < THERMISTOR > | | | |
| TH6002 | ⚠ | 1-803-541-11 | THERMISTOR | | | |

## *A-1638-158-A C Board, Complete

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 4-382-854-01 | SCREW (M3X8), P, SW (+) | | | |
| | | | < CAPACITOR > | | | |
| C7303 | | 1-162-909-91 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C7305 | | 1-136-207-11 | MYLAR | 0.047UF | 10.00% | 400V |
| C7306 | | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C7309 | | 1-163-035-00 | CERAMIC CHIP | 0.047UF | | 50V |
| C7310 | | 1-163-247-91 | CERAMIC CHIP | 68PF | 5.00% | 50V |
| C7325 | | 1-162-909-91 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C7326 | | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C7330 | | 1-136-207-11 | MYLAR | 0.047UF | 10.00% | 400V |
| C7333 | | 1-163-035-00 | CERAMIC CHIP | 0.047UF | | 50V |
| C7334 | | 1-163-247-91 | CERAMIC CHIP | 68PF | 5.00% | 50V |
| C7350 | | 1-104-664-91 | ELECT | 47UF | 20.00% | 25V |
| C7351 | | 1-162-909-91 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C7352 | | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C7354 | | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C7355 | | 1-107-967-11 | ELECT | 1UF | 20.00% | 400V |
| C7356 | | 1-136-207-11 | MYLAR | 0.047UF | 10.00% | 400V |
| C7359 | | 1-163-035-00 | CERAMIC CHIP | 0.047UF | | 50V |
| C7360 | | 1-163-247-91 | CERAMIC CHIP | 68PF | 5.00% | 50V |
| C7378 | | 1-162-116-00 | CERAMIC | 680PF | 10.00% | 2KV |
| C7379 | | 1-162-114-00 | CERAMIC | 0.0047UF | | 2KV |
| C7385 | | 1-162-913-91 | CERAMIC CHIP | 8PF | 0.50PF | 50V |
| C7388 | | 1-162-913-91 | CERAMIC CHIP | 8PF | 0.50PF | 50V |
| C7391 | | 1-162-913-91 | CERAMIC CHIP | 8PF | 0.50PF | 50V |
| | | | < CONNECTOR > | | | |
| CN7300 | | *1-564-508-11 | PLUG, CONNECTOR 5P | | | |
| CN7301 | | *1-564-512-11 | PLUG, CONNECTOR 9P | | | |
| CN7311 | | 1-695-915-11 | TAB (CONTACT) | | | |
| CN7333 | | 1-695-915-11 | TAB (CONTACT) | | | |
| | | | < DIODE > | | | |
| D7300 | | 8-719-911-19 | DIODE 1SS119-25 | | | |
| D7325 | | 8-719-911-19 | DIODE 1SS119-25 | | | |
| D7350 | | 8-719-911-19 | DIODE 1SS119-25 | | | |
| D7375 | | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| D7376 | | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| | | | < IC > | | | |
| IC7300 | | 8-759-360-83 | IC TDA6111Q/N4 | | | |
| IC7325 | | 8-759-360-83 | IC TDA6111Q/N4 | | | |

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

C D

| REF.NO. | | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|---|
| IC7350 | | 8-759-360-83 | IC TDA6111Q/N4 | |
| | | | < SOCKET > | |
| J7375 | ⚠ | 1-251-732-11 | SOCKET, CRT | |
| | | | < COIL > | |
| L7375 | | 1-410-671-31 | INDUCTOR 47UH | |
| L7376 | ⚠ | 1-532-637-00 | LINK, IC 1A/150V | ICP-N25 |
| L7378 | | 1-414-934-21 | INDUCTOR 10UH | |
| | | | < TRANSISTOR > | |
| Q7350 | | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q7352 | | 8-729-421-19 | TRANSISTOR UN2213 | |
| Q7353 | | 8-729-421-19 | TRANSISTOR UN2213 | |
| Q7354 | | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q7355 | | 8-729-421-19 | TRANSISTOR UN2213 | |
| | | | < RESISTOR > | |
| R7300 | | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R7302 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| R7303 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| R7304 | | 1-202-565-81 | SOLID 470 20% 1/2W | |
| R7305 | | 1-215-903-11 | METAL OXIDE 68K 5% 2W | |
| R7306 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| R7309 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| R7325 | | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R7327 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| R7328 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| R7329 | | 1-202-565-81 | SOLID 470 20% 1/2W | |
| R7330 | | 1-215-903-11 | METAL OXIDE 68K 5% 2W | |
| R7331 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| R7335 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| R7350 | | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R7355 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| R7356 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| R7357 | | 1-202-565-81 | SOLID 470 20% 1/2W | |
| R7358 | | 1-215-903-11 | METAL OXIDE 68K 5% 2W | |
| R7360 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| R7364 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| R7373 | | 1-216-823-11 | RES-CHIP 1.5K 5% 1/16W | |
| R7375 | | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R7376 | | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R7377 | | 1-249-430-11 | CARBON 12K 5% 1/4W | |
| R7379 | | 1-216-833-11 | RES-CHIP 10K 5% 1/16W | |
| R7380 | | 1-216-833-11 | RES-CHIP 10K 5% 1/16W | |
| R7381 | | 1-216-833-11 | RES-CHIP 10K 5% 1/16W | |
| R7382 | | 1-202-549-00 | SOLID 100 20% 1/2W | |
| R7383 | | 1-216-399-00 | METAL OXIDE 6.8 5% 3W | |
| R7384 | | 1-216-399-00 | METAL OXIDE 6.8 5% 3W | |
| R7385 | | 1-202-549-00 | SOLID 100 20% 1/2W | |
| R7388 | | 1-535-143-51 | LEAD, JUMPER (20.0MM) | |
| R7390 | | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R7391 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| R7393 | | 1-216-823-11 | RES-CHIP 1.5K 5% 1/16W | |
| R7394 | | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R7395 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| R7397 | | 1-216-823-11 | RES-CHIP 1.5K 5% 1/16W | |
| R7398 | | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R7399 | | 1-216-824-11 | RES-CHIP 1.8K 5% 1/16W | |
| | | | < VARIABLE RESISTOR > | |
| RV7375 | | 1-241-656-11 | RES, ADJ, METAL FILM 110M | |

## *A-1640-432-A D Board, Complete

| | | | |
|---|---|---|---|
| | 4-382-854-01 | SCREW (M3X8), P, SW (+) | |
| | *4-931-401-01 | HEAT SINK, V.OUT | |
| | | < CAPACITOR > | |
| C8100 | 1-136-165-00 | FILM 0.1UF | 5.00% 50V |
| C8101 | 1-136-165-00 | FILM 0.1UF | 5.00% 50V |
| C8102 | 1-136-165-00 | FILM 0.1UF | 5.00% 50V |
| C8103 | 1-115-416-11 | CERAMIC CHIP 0.001UF | 5.00% 25V |
| C8104 | 1-115-416-11 | CERAMIC CHIP 0.001UF | 5.00% 25V |
| C8105 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C8106 | 1-164-315-11 | CERAMIC CHIP 470PF | 5.00% 50V |
| C8108 | 1-162-970-11 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C8109 | 1-126-947-11 | ELECT 47UF | 20.00% 25V |
| C8113 | 1-162-970-11 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C8114 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C8115 | 1-162-962-11 | CERAMIC CHIP 470PF | 10.00% 50V |
| C8116 | 1-115-416-11 | CERAMIC CHIP 0.001UF | 5.00% 25V |
| C8117 | 1-115-416-11 | CERAMIC CHIP 0.001UF | 5.00% 25V |
| C8118 | 1-162-970-11 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C8120 | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C8125 | 1-162-968-11 | CERAMIC CHIP 0.0047UF | 10.00% 50V |
| C8126 | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C8128 | 1-162-968-11 | CERAMIC CHIP 0.0047UF | 10.00% 50V |
| C8130 | 1-164-230-11 | CERAMIC CHIP 220PF | 5.00% 50V |
| C8131 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C8132 | 1-164-230-11 | CERAMIC CHIP 220PF | 5.00% 50V |
| C8134 | 1-102-406-91 | CERAMIC 2PF | 0.25PF 50V |
| C8135 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C8136 | 1-126-964-11 | ELECT 10UF | 20.00% 50V |
| C8140 | 1-164-004-11 | CERAMIC CHIP 0.1UF | 10.00% 25V |
| C8207 | 1-165-176-91 | CERAMIC CHIP 0.047UF | 10.00% 16V |
| C8208 | 1-162-970-91 | CERAMIC CHIP 0.01UF | 10.00% 25V |
| C8209 | 1-164-315-11 | CERAMIC CHIP 470PF | 5.00% 50V |
| C8210 | 1-162-964-11 | CERAMIC CHIP 0.001UF | 10.00% 50V |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| C8801 | 1-126-947-11 | ELECT 47UF 20.00% 25V | |
| C8802 | 1-126-960-11 | ELECT 1UF 20.00% 50V | |
| C8803 | 1-126-960-11 | ELECT 1UF 20.00% 50V | |
| C8804 | 1-102-114-00 | CERAMIC 470PF 10.00% 50V | |
| C8805 | 1-102-114-00 | CERAMIC 470PF 10.00% 50V | |
| C8808 | 1-102-030-00 | CERAMIC 330PF 10.00% 500V | |
| C8809 | 1-102-030-00 | CERAMIC 330PF 10.00% 500V | |
| C8810 | 1-107-368-11 | MYLAR 0.047UF 10.00% 200V | |
| C8811 | 1-107-368-11 | MYLAR 0.047UF 10.00% 200V | |
| C8812 | 1-162-131-11 | CERAMIC 220PF 10.00% 2KV | |
| C8813 | 1-107-444-11 | CERAMIC 100PF 10.00% 2KV | |
| C8814 | 1-117-640-11 | FILM 6800PF 3.00% 1.2KV | |
| C8815 | 1-117-835-11 | FILM 6200PF 3.00% 1.5KV | |
| C8816 | 1-162-964-11 | CERAMIC CHIP 0.001UF 10.00% 50V | |
| C8817 | 1-125-893-11 | FILM 680PF 3.00% 1.5KV | |
| C8818 | 1-125-893-11 | FILM 680PF 3.00% 1.5KV | |
| C8819 | 1-125-893-11 | FILM 680PF 3.00% 1.5KV | |
| C8820 | 1-125-893-11 | FILM 680PF 3.00% 1.5KV | |
| C8824 | 1-107-846-11 | FILM 0.1UF 5.00% 250V | |
| C8825 | 1-117-663-11 | FILM 0.22UF 5.00% 250V | |
| C8826 | 1-115-518-11 | FILM 0.47UF 5.00% 250V | |
| C8827 | 1-117-660-21 | FILM 0.12UF 5.00% 250V | |
| C8828 | 1-127-681-11 | FILM MELF 10000PF 2% 100V | |
| C8829 | 1-127-680-11 | FILM MELF 4700PF 2% 100V | |
| C8830 | 1-107-655-11 | ELECT 47UF 20.00% 250V | |
| C8831 | 1-102-228-00 | CERAMIC 470PF 10.00% 500V | |
| C8832 | 1-126-941-11 | ELECT 470UF 20.00% 25V | |
| C8833 | 1-126-941-11 | ELECT 470UF 20.00% 25V | |
| C8834 | 1-102-228-00 | CERAMIC 470PF 10.00% 500V | |
| C8835 | 1-102-228-00 | CERAMIC 470PF 10.00% 500V | |
| C8836 | 1-123-024-21 | ELECT 33UF 160V | |
| C8837 | 1-106-375-12 | MYLAR 0.022UF 10.00% 250V | |
| C8840 | 1-165-176-11 | CERAMIC CHIP 0.047UF 10.00% 16V | |
| C8841 | 1-126-947-11 | ELECT 47UF 20.00% 25V | |
| C8844 | 1-115-513-21 | FILM 0.18UF 5.00% 250V | |
| C8851 | 1-162-131-11 | CERAMIC 220PF 10.00% 2KV | |
| C8852 | 1-162-129-00 | CERAMIC 150PF 10.00% 2KV | |
| C8853 | 1-129-898-00 | FILM 0.0022UF 5.00% 630V | |
| C8855 | 1-136-205-11 | MYLAR 0.022UF 10.00% 400V | |
| C8856 | 1-102-030-00 | CERAMIC 330PF 10.00% 500V | |
| C8860 | 1-162-964-11 | CERAMIC CHIP 0.001UF 10.00% 50V | |
| C8861 | 1-162-927-11 | CERAMIC CHIP 100PF 5.00% 50V | |
| C8869 | 1-162-964-11 | CERAMIC CHIP 0.001UF 10.00% 50V | |
| | | < CONNECTOR > | |
| CN8600 | *1-564-509-11 | PLUG, CONNECTOR 6P | |
| CN8601 | *1-564-506-11 | PLUG, CONNECTOR 3P | |
| CN8611 | *1-785-270-12 | PIN, DY CONNECTOR (PC BOARD) | |
| CN8612 | *1-564-511-51 | PLUG, CONNECTOR 8P | |
| CN8614 | *1-564-508-11 | PLUG, CONNECTOR 5P | |
| CN8616 | 1-695-915-11 | TAB (CONTACT) | |
| CN8620 | *1-764-333-11 | PLUG, CONNECTOR 10P | |
| CN8810 | *1-564-510-11 | PLUG, CONNECTOR 7P | |
| | | < DIODE > | |
| D8102 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8103 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8104 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8105 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8107 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8108 | 8-719-921-40 | DIODE MTZJ-4.7C | |
| D8128 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8129 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8132 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8133 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8198 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| D8199 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8611 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8612 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8803 | 8-719-908-03 | DIODE GP08D | |
| D8805 | 8-719-302-43 | DIODE EL1Z | |
| D8806 | 8-719-979-85 | DIODE EGP20G | |
| D8807 | 8-719-085-12 | DIODE BYV98-200-RAS 15/12 | |
| D8808 | 8-719-085-12 | DIODE BYV98-200-RAS 15/12 | |
| D8811 | 8-719-110-41 | DIODE RD15ES-B2 | |
| D8818 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D8819 | 8-719-050-38 | DIODE M1MA152WK-T1 | |
| D8820 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8851 | 8-719-970-87 | DIODE ERA38-06 | |
| D8856 | 8-719-081-97 | DIODE MMDL914T1 | |
| D8857 | 8-719-110-41 | DIODE RD15ES-B2 | |
| D8858 | 8-719-081-97 | DIODE MMDL914T1 | |
| | | < FERRITE BEAD > | |
| FB8806 | 1-410-397-31 | INDUCTOR 1.1UH | |
| FB8807 | 1-410-397-21 | FERRITE 1.1UH | |
| | | < IC > | |
| IC8100 | 8-759-450-95 | IC LM393N | |
| IC8101 | 8-759-450-95 | IC LM393N | |
| IC8102 | 8-759-638-79 | IC NJM3404AD-W | |
| IC8103 | 8-759-450-95 | IC LM393N | |
| | | < COIL > | |
| L8801 | 1-410-397-21 | FERRITE 1.1UH | |
| L8802 | 1-410-397-21 | FERRITE 1.1UH | |
| L8803 | 1-410-397-21 | FERRITE 1.1UH | |
| L8805 | 1-408-947-00 | INDUCTOR 2.2MH | |
| L8851 | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|
| | | < FILTER > | |
| LF8801 | 1-406-985-11 | INDUCTOR 2.2MH | |
| LF8851 | 1-406-674-11 | INDUCTOR 3.3MH | |
| | | < TRANSISTOR > | |
| Q8100 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8101 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8102 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8103 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8104 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8105 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8106 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8107 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8108 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8110 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8112 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8113 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8115 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8118 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8119 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8120 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8122 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8123 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8125 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8126 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8127 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8128 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8132 | 8-729-421-19 | TRANSISTOR UN2213 | |
| Q8135 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8136 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8137 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8201 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8202 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8203 | 8-729-010-05 | TRANSISTOR MSB709-RT1 | |
| Q8455 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8801 | 8-729-048-47 | TRANSISTOR 2SC2688(5)-LK | |
| Q8802 | 8-729-048-47 | TRANSISTOR 2SC2688(5)-LK | |
| Q8803 | 8-729-056-16 | TRANSISTOR 2SC5698-CA | |
| Q8804 | 8-729-056-17 | TRANSISTOR 2SC5696-SONY-CA | |
| Q8805 | 8-729-050-48 | TRANSISTOR IRF614-005 | |
| Q8806 | 8-729-047-59 | TRANSISTOR STP5NB40FP | |
| Q8807 | 8-729-421-19 | TRANSISTOR UN2213 | |
| Q8822 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q8823 | 8-729-024-83 | TRANSISTOR MUN2111T1 | |
| Q8851 | 6-550-012-01 | TRANSISTOR STP5NB40(030Y) | |
| | | < RESISTOR > | |
| R8100 | 1-216-813-11 | RES-CHIP 220 5% 1/16W | |
| R8101 | 1-216-813-11 | RES-CHIP 220 5% 1/16W | |
| R8102 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8103 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8104 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8105 | 1-216-821-11 | RES-CHIP 1K 5% 1/16W | |
| R8106 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8107 | 1-208-792-91 | RES-CHIP 2.7K 5% 1/10W | |
| R8108 | 1-208-792-91 | RES-CHIP 2.7K 5% 1/10W | |
| R8109 | 1-208-814-91 | METAL CHIP 22K 0.5% 1/10W | |
| R8110 | 1-208-814-91 | METAL CHIP 22K 0.5% 1/10W | |
| R8111 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8112 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8113 | 1-216-833-11 | RES-CHIP 10K 5% 1/16W | |
| R8114 | 1-216-833-11 | RES-CHIP 10K 5% 1/16W | |
| R8115 | 1-216-845-91 | RES-CHIP 100K 5% 1/16W | |
| R8116 | 1-216-845-91 | RES-CHIP 100K 5% 1/16W | |
| R8117 | 1-216-833-11 | RES-CHIP 10K 5% 1/16W | |
| R8118 | 1-216-833-11 | RES-CHIP 10K 5% 1/16W | |
| R8119 | 1-216-833-11 | RES-CHIP 10K 5% 1/16W | |
| R8120 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8121 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8122 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8123 | 1-216-841-11 | RES-CHIP 47K 5% 1/16W | |
| R8124 | 1-216-821-91 | RES-CHIP 1K 5% 1/10W | |
| R8125 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8126 | 1-216-815-11 | RES-CHIP 330 5% 1/16W | |
| R8127 | 1-208-794-11 | METAL CHIP 3.3K 0.5% 1/10W | |
| R8128 | 1-208-822-11 | METAL CHIP 47K 0.5% 1/10W | |
| R8129 | 1-208-822-11 | METAL CHIP 47K 0.5% 1/10W | |
| R8130 | 1-208-846-11 | METAL CHIP 470K 0.5% 1/10W | |
| R8131 | 1-216-815-11 | RES-CHIP 330 5% 1/16W | |
| R8132 | 1-216-815-11 | RES-CHIP 330 5% 1/16W | |
| R8133 | 1-216-815-11 | RES-CHIP 330 5% 1/16W | |
| R8136 | 1-208-822-11 | METAL CHIP 47K 0.5% 1/10W | |
| R8137 | 1-208-822-11 | METAL CHIP 47K 0.5% 1/10W | |
| R8138 | 1-208-822-11 | METAL CHIP 47K 0.5% 1/10W | |
| R8139 | 1-208-822-11 | METAL CHIP 47K 0.5% 1/10W | |
| R8140 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8141 | 1-208-814-91 | METAL CHIP 22K 0.5% 1/10W | |
| R8142 | 1-208-803-11 | METAL CHIP 7.5K 0.5% 1/10W | |
| R8143 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8144 | 1-216-841-11 | RES-CHIP 47K 5% 1/16W | |
| R8145 | 1-216-825-11 | RES-CHIP 2.2K 5% 1/16W | |
| R8146 | 1-208-790-11 | METAL CHIP 2.2K 0.5% 1/10W | |
| R8149 | 1-216-828-11 | RES-CHIP 3.9K 5% 1/16W | |
| R8150 | 1-216-837-91 | RES-CHIP 22K 5% 1/16W | |
| R8153 | 1-216-295-91 | SHORT 0 | |
| R8154 | 1-208-782-11 | METAL CHIP 1K 0.5% 1/10W | |
| R8155 | 1-208-789-91 | RES-CHIP 2K 0.5% 1/10W | |
| R8158 | 1-208-794-11 | METAL CHIP 3.3K 0.5% 1/10W | |
| R8159 | 1-216-295-91 | SHORT 0 | |

| REF.NO. | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R8160 | 1-216-295-91 | SHORT | 0 | | |
| R8161 | 1-208-804-11 | METAL CHIP | 8.2K | 0.5% | 1/10W |
| R8162 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8163 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8164 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R8165 | 1-208-830-11 | METAL CHIP | 100K | 0.5% | 1/10W |
| R8168 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8169 | 1-208-830-11 | METAL CHIP | 100K | 0.5% | 1/10W |
| R8170 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R8171 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8174 | 1-216-834-11 | RES-CHIP | 12K | 5% | 1/16W |
| R8175 | 1-216-831-91 | RES-CHIP | 6.8K | 5% | 1/16W |
| R8176 | 1-216-838-91 | RES-CHIP | 27K | 5% | 1/16W |
| R8177 | 1-216-830-91 | RES-CHIP | 5.6K | 5% | 1/16W |
| R8179 | 1-216-295-91 | SHORT | 0 | | |
| R8180 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8181 | 1-216-295-91 | SHORT | 0 | | |
| R8182 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R8183 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8186 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R8188 | 1-216-829-91 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8189 | 1-216-822-91 | RES-CHIP | 1.2K | 5% | 1/16W |
| R8190 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8191 | 1-215-925-11 | METAL OXIDE | 22K | 5% | 3W |
| R8196 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W |
| R8197 | 1-216-841-91 | RES-CHIP | 47K | 5% | 1/16W |
| R8203 | 1-208-789-91 | RES-CHIP | 2K | 0.5% | 1/10W |
| R8204 | 1-216-295-91 | SHORT | 0 | | |
| R8205 | 1-216-295-91 | SHORT | 0 | | |
| R8206 | 1-216-849-91 | RES-CHIP | 220K | 5% | 1/16W |
| R8207 | 1-216-846-91 | RES-CHIP | 120K | 5% | 1/16W |
| R8209 | 1-216-295-91 | SHORT | 0 | | |
| R8210 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8211 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8212 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8215 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R8216 | 1-208-812-91 | RES-CHIP | 18K | 0.5% | 1/10W |
| R8217 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8219 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R8220 | 1-216-834-11 | RES-CHIP | 12K | 5% | 1/16W |
| R8221 | 1-216-837-91 | RES-CHIP | 22K | 5% | 1/16W |
| R8223 | 1-164-230-91 | CERAMIC CHIP | 220PF | 5% | 50V |
| R8224 | 1-216-827-91 | RES-CHIP | 3.3K | 5% | 1/16W |
| R8456 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R8457 | 1-216-834-11 | RES-CHIP | 12K | 5% | 1/16W |
| R8458 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R8459 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8800 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W |
| R8804 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W |
| R8805 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W |
| R8806 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R8807 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R8808 | 1-260-340-11 | CARBON | 10K | 5% | 1/2W |
| R8809 | 1-260-340-11 | CARBON | 10K | 5% | 1/2W |
| R8810 | 1-215-895-11 | METAL OXIDE | 3.3K | 5% | 2W |
| R8811 | 1-215-896-51 | METAL | 4.7K | 5% | 2W |
| R8812 | 1-216-461-51 | METAL | 5.6K | 5% | 2W |
| R8813 | 1-215-895-11 | METAL OXIDE | 3.3K | 5% | 2W |
| R8814 | 1-215-880-00 | METAL OXIDE | 10 | 5% | 2W |
| R8815 | 1-215-880-00 | METAL OXIDE | 10 | 5% | 2W |
| R8816 | 1-216-365-51 | METAL | 0.47 | 5% | 2W |
| R8817 | 1-216-361-00 | METAL OXIDE | 0.22 | 5% | 2W |
| R8818 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R8819 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R8831 | 1-260-124-11 | CARBON | 120K | 5% | 1/2W |
| R8833 | 1-202-972-61 | FUSIBLE | 1 | 5% | 1/4W |
| R8834 | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W |
| R8835 | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W |
| R8836 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R8837 | 1-215-894-11 | METAL OXIDE | 2.2K | 5% | 2W |
| R8838 | 1-214-905-11 | METAL | 47K | 1% | 1/2W |
| R8839 | 1-215-894-11 | METAL OXIDE | 2.2K | 5% | 2W |
| R8840 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R8842 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W |
| R8843 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8844 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8845 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8851 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W |
| R8852 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W |
| R8853 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W |
| R8854 | 1-247-847-91 | CARBON | 4.7K | 5% | 1/4W |
| R8856 | 1-216-485-11 | METAL OXIDE | 5.6K | 5% | 3W |
| R8857 | 1-216-485-11 | METAL OXIDE | 5.6K | 5% | 3W |
| R8858 | 1-215-922-11 | METAL OXIDE | 6.8K | 5% | 3W |
| R8859 | 1-215-922-11 | METAL OXIDE | 6.8K | 5% | 3W |
| R8865 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8866 | 1-216-295-91 | SHORT | 0 | | |
| R8867 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8869 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R8870 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R8885 | 1-208-854-11 | METAL CHIP | 1M | 0.5% | 1/10W |
| R8886 | 1-208-836-91 | RES-CHIP | 180K | 0.5% | 1/10W |
| R8887 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R8888 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R8895 | 1-249-443-11 | CARBON | 0.47 | 5% | 1/4W |
| R8896 | 1-249-443-11 | CARBON | 0.47 | 5% | 1/4W |
| R8897 | 1-215-485-00 | METAL | 470K | 1% | 1/4W |
| R8898 | 1-215-493-00 | METAL | 1M | 1% | 1/4W |
| R8899 | 1-215-493-00 | METAL | 1M | 1% | 1/4W |

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.



| REF.NO. | | PART.NO | DESCRIPTION | REMARK |
|---|---|---|---|---|
| | | | < TRANSFORMER > | |
| T8800 | ⚠ | 1-453-340-31 | TRANSFORMER ASSY,FLYBACK (NX-4522//Z2B4) | |
| T8801 | | 1-437-430-11 | TRANSFORMER, FERRITE (HDT) | |
| T8802 | | 1-437-430-11 | TRANSFORMER, FERRITE (HDT) | |
| T8852 | | 1-433-487-11 | TRANSFORMER, FERRITE (DFT) | |

## *A-1647-043-A H2 Board, Complete

| | | | | |
|---|---|---|---|---|
| | | | < CAPACITOR > | |
| C2906 | | 1-126-960-11 | ELECT 1UF | 20.00% 50V |
| C2907 | | 1-126-960-11 | ELECT 1UF | 20.00% 50V |
| C2913 | | 1-162-964-11 | CERAMIC CHIP 0.001UF | 10.00% 50V |
| C2914 | | 1-162-964-11 | CERAMIC CHIP 0.001UF | 10.00% 50V |
| | | | < CONNECTOR > | |
| CN2900 | | 1-779-947-11 | TERMINAL BLOCK, S | |
| CN2906 | | *1-564-524-11 | PLUG, CONNECTOR 9P | |
| CN2908 | | 1-564-521-11 | PLUG, CONNECTOR 6P | |
| | | | < JACK > | |
| J2900 | | 1-750-264-11 | JACK | |
| | | | < COIL > | |
| L0904 | | 1-410-119-11 | INDUCTOR 1MH | |
| L2900 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| L2901 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| L2902 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| L2903 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| | | | < RESISTOR > | |
| R912 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| R0901 | | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R0902 | | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R0911 | | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R0913 | | 1-247-843-11 | CARBON 3.3K 5% 1/4W | |
| R0914 | | 1-249-431-11 | CARBON 15K 5% 1/4W | |
| R2903 | | 1-249-406-11 | CARBON 120 5% 1/4W | |
| R2904 | | 1-249-406-11 | CARBON 120 5% 1/4W | |
| R2909 | | 1-247-895-91 | CARBON 470K 5% 1/4W | |
| R2910 | | 1-247-895-91 | CARBON 470K 5% 1/4W | |
| R2915 | | 1-249-406-11 | CARBON 120 5% 1/4W | |
| R2916 | | 1-249-406-11 | CARBON 120 5% 1/4W | |
| R2917 | | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R2918 | | 1-249-412-11 | CARBON 390 5% 1/4W | |
| | | | < SWITCH > | |
| S0900 | | 1-692-979-11 | SWITCH, TACTILE | |
| S0901 | | 1-692-979-11 | SWITCH, TACTILE | |
| S0902 | | 1-692-979-11 | SWITCH, TACTILE | |

## *A-1644-119-A VM Board, Complete

| | | | | |
|---|---|---|---|---|
| | | 4-382-854-01 | SCREW (M3X8), P, SW (+) | |
| | | | < CAPACITOR > | |
| C7401 | | 1-126-935-11 | ELECT 470UF | 20.00% 16V |
| C7403 | | 1-126-935-11 | ELECT 470UF | 20.00% 6.3V |
| C7404 | | 1-115-339-11 | CERAMIC CHIP 0.1UF | 10.00% 50V |
| C7405 | | 1-126-933-11 | ELECT 100UF | 20.00% 16V |
| C7406 | | 1-126-935-11 | ELECT 470UF | 20.00% 6.3V |
| C7407 | | 1-107-364-11 | MYLAR 0.01UF | 10.00% 200V |
| C7408 | | 1-107-364-11 | MYLAR 0.01UF | 10.00% 200V |
| C7409 | | 1-107-649-11 | ELECT 2.2UF | 20.00% 250V |
| C7410 | | 1-130-471-00 | MYLAR 0.001UF | 5.00% 50V |
| C7411 | | 1-130-471-00 | MYLAR 0.001UF | 5.00% 50V |
| C7412 | | 1-126-935-11 | ELECT 470UF | 20.00% 16V |
| C7413 | | 1-126-935-11 | ELECT 470UF | 20.00% 16V |
| C7414 | | 1-107-652-11 | ELECT 10UF | 20.00% 250V |
| C7415 | | 1-107-363-91 | MYLAR 0.0068UF | 10.00% 200V |
| C7418 | | 1-163-021-91 | CERAMIC CHIP 0.01UF | 10.00% 50V |
| C7421 | | 1-163-251-11 | CERAMIC CHIP 100PF | 5.00% 50V |
| | | | < CONNECTOR > | |
| CN7442 | | *1-564-508-11 | PLUG, CONNECTOR 5P | |
| CN7443 | | *1-564-506-11 | PLUG, CONNECTOR 3P | |
| CN7444 | | *1-770-723-11 | CONNECTOR, BOARD TO BOARD 8P | |
| | | | < DIODE > | |
| D7400 | | 8-719-991-33 | DIODE 1SS133T-77 | |
| D7401 | | 8-719-991-33 | DIODE 1SS133T-77 | |
| D7402 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| D7403 | | 8-719-991-33 | DIODE 1SS133T-77 | |
| D7404 | | 8-719-991-33 | DIODE 1SS133T-77 | |
| D7405 | | 8-719-924-11 | DIODE MTZJ-T-77-22 | |
| D7406 | | 8-719-924-11 | DIODE MTZJ-T-77-22 | |
| | | | < FERRITE BEAD > | |
| FB7400 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| FB7401 | | 1-535-143-61 | LEAD, JUMPER (5.0MM) | |
| | | | < COIL > | |
| L7400 | | 1-414-934-21 | INDUCTOR 10UH | |
| L7402 | | 1-414-934-21 | INDUCTOR 10UH | |
| L7403 | | 1-414-934-21 | INDUCTOR 10UH | |
| | | | < TRANSISTOR > | |
| Q7400 | | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q7401 | | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |
| Q7402 | | 8-729-010-29 | TRANSISTOR MSD601-RST1 | |

**Note :** The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

VM

| REF.NO. | PART.NO | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| Q7403 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | | |
| Q7404 | 8-729-216-22 | TRANSISTOR 2SA1162-G | | | |
| Q7405 | 8-729-026-39 | TRANSISTOR 2SA933AS-QT | | | |
| Q7406 | 8-729-045-05 | TRANSISTOR 2SA2005 | | | |
| Q7407 | 8-729-045-04 | TRANSISTOR 2SC5511 | | | |
| Q7408 | 8-729-216-22 | TRANSISTOR 2SA1162-G | | | |
| Q7409 | 8-729-010-29 | TRANSISTOR MSD601-RST1 | | | |
| | | < RESISTOR > | | | |
| R7400 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R7401 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R7402 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R7403 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R7404 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R7405 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R7407 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R7409 | 1-216-029-00 | RES-CHIP | 150 | 5% | 1/10W |
| R7410 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R7411 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R7412 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R7413 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R7414 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R7415 | 1-247-739-11 | CARBON | 100 | 5% | 1/2W |
| R7416 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R7417 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R7418 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R7419 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R7420 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R7421 | 1-249-389-91 | CARBON | 4.7 | 5% | 1/4W |
| R7422 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R7423 | 1-215-915-11 | METAL OXIDE | 470 | 5% | 3W |
| R7427 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R7428 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R7429 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R7432 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R7433 | 1-247-787-91 | RES-CHIP | 15 | 5% | 1/4W |
| R7434 | 1-249-395-11 | CARBON | 15 | 5% | 1/4W |
| R7435 | 1-216-033-91 | RES-CHIP | 220 | 5% | 1/10W |
| R7436 | 1-216-049-91 | RES-CHIP | 1K | 5% | 1/10W |

## MISCELLANEOUS

| REF.NO. | PART.NO | DESCRIPTION |
|---|---|---|
| ⚠ | 1-571-433-21 | SWITCH, PUSH (AC POWER) |
| ⚠ | 1-765-286-11 | CORD, POWER |
| | 1-424-855-11 | COIL, CHOKE |
| | 8-598-535-11 | FRONTEND (BTF-EF411) (KV-29LS60B) |
| | 8-598-533-01 | FRONTEND (BTF-EC411) (KV-29LS60E/29LS60K) |
| ⚠ | 1-453-340-31 | TRANSFORMER ASSY, FLYBACK (NX-4522//Z2B4) |
| | 1-529-989-11 | SPEAKER (8CM) |
| | 1-529-408-11 | SPEAKER (4.2x24CM) |
| ⚠ | 8-735-053-05 | PICTURE TUBE (M68LNH060X) |
| | 8-451-504-31 | DEFLECTION YOKE (Y29RSC-S) |
| | 1-452-896-11 | COIL, NA ROTATION (RT-200) |
| ⚠ | 1-424-887-11 | COIL, DEGAUSSING |
| | 8-453-011-41 | NECK ASSY, (NA299-C) |
| ⚠ | 1-251-946-11 | CAP ASSY, HIGH-VOLTAGE |
| | 1-452-094-00 | MAGNET, ROTATABLE DISK; 15MM |
| | 1-452-032-00 | MAGNET, DISK; 10MM |

## ACCESSORIES AND PACKAGING MATERIALS

| | |
|---|---|
| *4-029-168-01 | BAG, PROTECTION |
| *4-205-942-01 | INDIVIDUAL CARTON |
| 4-206-052-21 | INSTRUCTION MANUAL (KV-29LS60B) (GERMAN/FRENCH/ITALIAN/DUTCH) |
| 4-206-052-11 | INSTRUCTION MANUAL (KV-29LS60E) (GERMAN/GREEK/TURKISH) |
| 4-206-052-41 | INSTRUCTION MANUAL (KV-29LS60E) (ITALIAN) |
| 4-206-052-51 | INSTRUCTION MANUAL (KV-29LS60E) (DANISH/SPANISH/NORWEGIAN/PORTUGUESE SWEDISH/FINNISH) |
| 4-206-052-31 | INSTRUCTION MANUAL (KV-29LS60K) (ENGLISH/BULGARIAN/CZECH/HUNGARIAN POLISH/RUSSIAN) |

## REMOTE COMMANDER

| | |
|---|---|
| 1-476-702-11 | REMOTE COMMANDER (RM-932) |

# TRACE

A new TV Repair Assistance Tool that combines ease of use and powerful PC software tools to allow you to save valuable time during many TV repairs.

The TRACE interface connects to the PC's serial port. It provides connection to the TV's $I^2C$ bus and can be provided with an InfraRed transmitter (optional).

The interface is powered by a standard 9 V PP3 battery for portable use, and can also be powered by an external 9V/25mA DC power supply.

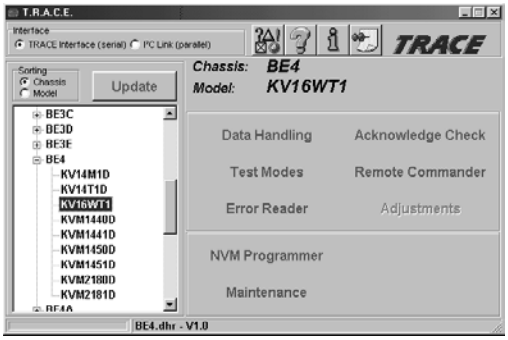
The TRACE software that is supplied with the interface allows you to:

- Read, restore and compare NVM contents via the $I^2C$ bus
- Acknowledge check of all $I^2C$ devices in the TV set
- Read Error Codes (emulation of the Error Reader tool)

With the optional IR Add-on kit, the following features can be added:

- Remote Commander emulation
- User programmable Functional Check through Infrared
- Fast and documented Test Mode setting of all Sony TV chassis

Additional features such as Adjustments and Troubleshooting are available in chassis-dependent software modules. Please contact your local Sony Service organisation for the latest information.




*Note: For workshops already using the existing $I^2C$ Link parallel port interface (9-948-320-30), this software can be used as well, replacing the TV Data Handling software (9-948-340-50), but Error Reader and IR functions can only be accessed with the TRACE interface.*

Partnumbers:

| | |
|---|---|
| TRACE Starter Kit (TRACE interface + software): | 9-948-320-70 |
| TRACE Software (for users of the $I^2C$ Link interface): | 9-948-340-80 |
| TRACE IR Add-on (IR interface + Remote Commander software): | 9-948-320-80 |

PC requirements: IBM-compatible PC with operating system Windows95, Windows98, or WindowsNT*.

* WindowsNT only supported with TRACE interface

**9-927-409-01**

**Sony Corporation**
**Sony UK**
**Service Promotions Dept.**

**English**
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